

**U.S. Environmental Protection Agency
Science Advisory Board**

**Summary Minutes for the Public Teleconference held on
March 30, 2020**

Meeting Participants:

Chartered Science Advisory Board (SAB) Members

Dr. Michael Honeycutt, Chair

Dr. Rodney Andrews

Dr. Hugh A. Barton

Dr. Barbara Beck

Dr. Deborah Hall Bennett

Dr. Frederick Bernthal

Dr. Bob Blanz

Dr. Todd Brewer

Dr. Joel G. Burken

Dr. Janice E. Chambers

Dr. John R. Christy

Dr. Samuel Cohen

Dr. Louis Anthony (Tony) Cox, Jr.

Dr. Alison C. Cullen

Dr. Otto C. Doering III

Dr. Susan P. Felter

Dr. Joseph A. Gardella

Dr. John Guckenheimer

Dr. Margaret M. MacDonell

Dr. Robert E. Mace

Dr. Clyde F. Martin

Dr. Sue Marty

Mr. Robert W. Merritt,

Dr. Larry Monroe

Dr. Thomas F. Parkerton

Dr. Robert Phalen

Dr. Kenneth M. Portier

Dr. Robert Puls

Dr. Mara Seeley

Dr. Anne Smith

Dr. Richard Smith

Dr. Jay Turner

Dr. Brant Ulsh

Dr. Donald van der Vaart

Ms. Carrie Vollmer-Sanders
Dr. Kimberly White
Dr. Mark Wiesner
Dr. Richard A. Williams
Dr. S. Stanley Young

Science Advisory Board Drinking Water Committee

Dr. Mark Wiesner, Chair
Dr. Craig Adams
Dr. Amy Childress
Dr. Baolin Deng
Dr. Raymond M. Hozalski
Dr. Mark W. LeChevallier
Dr. Richard Sakaji
Dr. Craig Steinmaus
Dr. June Weintraub
Dr. Lloyd Wilson
Dr. Yuefeng Xie

SAB Staff Office

Dr. Thomas Armitage, Designated Federal Officer (DFO) for the Chartered SAB
Mr. Thomas Brennan, SAB Staff Office Director

Other Attendees

See Attachment A.

Meeting Summary:

Convene the meeting

The Chartered Science Advisory Board (SAB) held a public teleconference on March 30, 2020. Dr. Thomas Armitage, DFO for the Chartered SAB, convened the teleconference at approximately 1:00 pm (Eastern Time) and noted that the SAB was meeting by teleconference to receive briefings from the EPA on two proposed rules and to discuss whether to review the scientific and technical basis of these proposed regulations: (1) National Primary Drinking Water Regulations: Proposed Lead and Copper Rule (LCR) Revisions;¹ and (2) Oil and Natural Gas Sector: Emission Standards for New, Reconstructed and Modified Sources Review.² Dr. Armitage provided introductory remarks in his capacity as DFO. He stated that the SAB is an independent Federal Advisory Committee chartered under the Federal Advisory Committee Act (FACA). He indicated that the SAB is empowered by law to provide scientific and technical advice to the EPA Administrator. Dr. Armitage noted that summary minutes of the teleconference would be prepared and certified by the SAB Chair following the meeting. He also and noted the SAB's compliance with ethics requirements.

Dr. Armitage indicated that all meeting materials were available on the SAB website. Meeting materials included SAB roster³ SAB Drinking Water Committee roster,⁴ and meeting agenda.⁵ Dr. Armitage noted that, as required by FACA, time had been included on the meeting agenda to hear public comments and that requests to speak had been received from two individuals.⁶ In addition, Dr. Armitage noted that written public comments had been received, posted on the SAB website, and made available to SAB members. Dr. Armitage also indicated that public access to the meeting had been provided through a telephone line. Dr. Armitage proceeded with a roll call of the Board and the SAB Drinking Water Committee members and then turned the meeting over to Dr. Michael Honeycutt, Chair of the SAB.

Purpose of the Teleconference and Review of the Agenda

Dr. Honeycutt welcomed SAB members, EPA Staff, and others to the teleconference. Dr. Honeycutt indicated the SAB was holding the teleconference to receive briefings from the EPA on the two proposed rules and discuss whether the SAB should review the scientific and technical basis of the proposed rules.

Dr. Honeycutt noted the Environmental Research, Development, and Demonstration Authorization Act (ERDDAA) which requires that proposed rules be made available to the SAB for review. He noted that the SAB reviews focused on the scientific and technical basis of the proposed regulatory actions. Dr. Honeycutt noted that the EPA had recently established a new process to receive scientific advice from the SAB on major planned actions identified in EPA's Unified Regulatory Agenda.

Dr. Honeycutt noted that, as set forth in the new process, the SAB Staff Office and the Chartered SAB Chair had reviewed EPA's regulatory agenda and identified two proposed rules which could benefit from SAB review of the underlying science. Dr. Honeycutt noted that the purpose of this teleconference was twofold – first, EPA would provide an overview of the two proposed regulatory actions and second, the Board would determine whether further SAB review of these planned actions was needed.

Dr. Honeycutt reviewed the agenda and indicated that the Board would first hear public comments on the proposed rules.

Public comments

The SAB heard public comments from two registered speakers.

Ms. Mekela Panditharatne, from Earthjustice, was the first speaker. Ms. Panditharatne provided oral comments drawn from Earthjustice's written comments (posted on the SAB website).⁷ Ms. Panditharatne emphasized the following points. First, Earthjustice urged the SAB to review the proposed revisions to EPA's Lead and Copper rule to ensure that the Agency met its legal mandate under the Safe Drinking Water Act ("SDWA") to protect public health and the environment based on the best available science. Ms. Panditharatne noted that the proposed rule constitutes the first proposal to revise the federal law governing lead in drinking water since 1991 and that EPA's proposed changes to the rule were flawed. She noted that the proposed rule

did not set a Maximum Contaminant Level (MCL) for lead. Ms. Panditharatne stated that the EPA should establish an MCL and urged the SAB to advise the EPA about the MCL for lead. She indicated that it should be no greater than 5 ug/L. Ms. Panditharatne noted that the EPA did not lower the MCL to a health protective standard of 5 ppb in the proposed regulation. She also indicated that the SAB should advise the EPA to require all utilities to conduct mandatory lead service line replacements and to preserve or strengthen the current mandatory annual lead service line replacement rate. Ms. Panditharatne indicated that there was no scientific basis for EPA's proposal to significantly slow the rate of lead service line replacement from the current annual rate of 7% to an annual rate of 3% and that partial line replacement was often associated with greater lead exposure. Ms. Panditharatne stated that the SAB should advise the EPA to strengthen public education requirements, including outreach to communities at risk, and to revise its school testing proposal to better protect low-income and children of color, which is consistent with the best available science.

Ms. Isabel Carey, from the Institute for Policy Integrity (IPI), New York University (NYU) School of Law, was the second speaker. Ms. Carey provided oral comments drawn from NYU IPI's written comments posted on the SAB website.⁸ Ms. Carey emphasized the following points. First, that the EPA failed to estimate any costs of foregone volatile organic compounds (VOC) reductions in the Oil and Natural Gas Sector Proposed Rule. Second, that the EPA did not adequately consider the proposed rule's implications for methane emissions from existing sources in the Crude Oil and Natural Gas source category. She noted that if methane standards for new sources were repealed, the Agency would lose authority to establish emission guidelines for methane from existing sources in any segment of the source category. Third, Ms. Carey indicated that the EPA had limited the timespan of its analysis to 7 years into the future, far short of the 30-year time period more typically recommended for regulatory impact analysis. Finally, she indicated that the EPA's revised valuation of the social cost of methane severely undervalued the significant climate costs of methane. She noted that the EPA's attempt to limit valuation to domestic-only climate effects excluded many of significant effects that matter to the U.S., and that the EPA's use of a 7% discount rate was out of step with best practices for valuing intergenerational effects.

Dr. Honeycutt asked members of the Chartered SAB and SAB Drinking Water Questions if they had questions for the speakers. There were no questions.

EPA Presentation on Proposed Rule - National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions

Dr. Honeycutt thanked members of the public for their comments and stated that the Board would next receive a briefing from the EPA on the Proposed Lead and Copper Rule Revisions. Dr. Honeycutt noted that after the briefing the Board would discuss whether the SAB should review the scientific and technical basis of the proposed rule. Dr. Honeycutt reminded SAB members of four questions, posted on the SAB website, to be considered in deciding whether the SAB should review the scientific and technical basis of a proposed rule.⁹

Dr. Honeycutt then invited Mr. Eric Burneson, Director of the Standards and Risk Management Division of the EPA Office of Ground Water and Drinking Water, to brief the SAB on the proposed Lead and Copper Rule Revisions. Mr. Eric Burneson's presentation was posted on the SAB website.¹⁰ The briefing emphasized the following points. First, that the SAB's previous review of partial lead service line replacement was very significant. It was noted that in the proposed rule, partial replacement of lead service lines was no longer recommended, and that the Agency was suggesting full replacement of lead-contaminated lines with some exceptions for emergency maintenance and customer preference. Second, the proposed rule would require some mitigation activity in cases where full lead service line replacement was not achievable. Mr. Burneson emphasized the importance of SAB input in formulating these approaches. Mr. Burneson also mentioned other important on-going lead-related efforts such as the All Ages Lead Model (AALM) SAB Review.

Dr. Honeycutt asked the Board if there were any questions or comments for EPA staff. Members of the Board requested clarifications from the EPA.

Referring to slide 7, there was a question related to the estimated 0 ppb Maximum Contaminant Level Goal for lead and whether there was a detection limit associated with that value. EPA staff indicated that the MCL goal is separate and distinct from feasibility under the Safe Drinking Water Act and there is no quantitation requirement.

There were multiple requests from SAB members for clarification about the property boundary of lead service lines under the proposed rule, including the sampling strategy of the house as a unit. In response, EPA staff noted that the proposed rule defined the lines between the property owner and the company. However, staff indicated that payment for the line replacement is not addressed in the proposed regulation. EPA staff further indicated that the EPA has the authority to lower lead exposure through full lead-contaminated line replacements. However, EPA does not regulate who pays for the replacement. EPA staff noted that lead levels will vary significantly from house to house in terms of configurations.

Additional clarification was requested about how homeowner's preferences were addressed. Members questioned who would be responsible for mitigating high lead levels inside homes if homeowners did not allow replacements inside homes when utility companies replaced the lead service lines outside of properties. EPA staff indicated that if drinking water exceeded the action level, the water system was required to replace 3% of the service lines in its inventory per year. If customers refused replacement, the water system would have to achieve 3% replacement per year through other customers. EPA staff noted that the water system would not have the authority to compel a resistant homeowner/customer to replace lines. EPA staff noted that if only the "customer refusals" were left in an inventory, the proposed rule provided options for documenting and demonstrating a good faith effort from the utility to comply.

Members of the Board requested clarification about proposed sampling methods under the proposed rule. A member asked how EPA would manage training and sampling certification. EPA staff noted that the sampling requirements pertained to collection of samples from taps by water utility companies. EPA staff also noted that under the proposed rule, water utilities could

allow customers to collect samples from taps if the utilities provided instructions on how to collect the samples. Staff noted that the EPA believed that tap sampling was critical. Given that access into private property could be challenging at times, the EPA made allowances in the proposed rule for water systems to recruit homeowners to collect samples if instructions were provided (e.g., instructions about flushing, six-hour stagnation period, draw first litre for sample, etc.). EPA staff noted that the Agency received many public comments on this issue.

A member asked questions about the benefits calculation for the proposed rule. Specifically, the member asked what type of reviews had occurred on the exposure and health benefit components of the modeling for lead risk assessment. EPA staff indicated that the Agency used two models: 1) the Stochastic Human Exposure and Dose Simulation (SHEDS-Probabilistic Exposure Model), which had received independent peer reviews; and 2) the Integrated Exposure Uptake Biokinetic Model (IEUBK) for Lead in Children, which also had been peer reviewed. This information was provided by the Agency in a document titled: Proposed Modeling Approaches for a Health-Based Benchmark for Lead in Drinking Water, available to the public on the EPA website. Staff noted that the Agency was currently evaluating comments received from the public. The peer review of the proposed modeling approaches was similar to the lead-dust evaluation recently published by Agency. The independent evaluation of the multivariate analysis included considerations of uncertainty and variability, as well as advances in science. EPA staff noted that the analysis and procedures that the Agency had used in the proposed rule were essentially the same as those used while developing the lead-dust hazard standard.

EPA staff indicated that numerous public comments had been received about discount rates. Staff noted that the Agency was reviewing those comments. Staff indicated that the social discount rates used in the proposed rule were in the federal agency guidance that was currently used for economic analyses across the Agency. Staff noted that this analysis was driven by how the primary benefits were calculated (i.e., based on income losses due to lost wages from loss of intelligence quotient (IQ) across 40 years). EPA staff also noted that the Agency was carefully evaluating potentially higher discount rates, how to calculate the benefits, and the costs incurred in current years. Staff noted that benefits were often accruing in the future, so there could be disparities. EPA staff indicated that the benefits of the proposed rule were solely calculated on lowered IQ, but the EPA could evaluate other health effects.

SAB members asked additional questions about discount rates and the potential for greater levels of lead exposure that could be associated with health effects other than IQ. Specifically, clarifications were requested by Board members about how the EPA was proposing to target resources if non-linear discount rate levels and/or cut offs were needed for different areas. EPA staff noted that the Agency considered non-quantified benefits even when they were not included in quantified benefits. Staff noted that the cost-benefit analysis was only a portion of the Agency's evaluation. There were other factors that came into play in the overall determination of feasibility of the regulatory action.

Referring to slide 10, members requested clarification of the effects of EPA's proposal for a 3% rate for full replacement lines and the partial line replacement allowed under limited

circumstances. EPA staff indicated that when necessary, systems could provide filters and other information to mitigate lead levels.

SAB members raised concerns about how to proceed when there was lack of cooperation for full line replacement and how to document different approaches (i.e., flushing, pitchers, among others). Also, clarification was requested from members about the “hierarchy of care” for environments where lead levels were high (i.e., what are the rules or path for determination and prioritization?). EPA staff indicated that the action level remains in place and water systems should prepare documentation and have ongoing, annual communication with customers. Staff noted that for the high lead levels settings, the “find and fix” provision of the rule may be appropriate. EPA staff noted that for locations with higher than normal lead levels in drinking water, the water system must conduct “find and fix” follow-up sampling to verify whether there are issues related to water quality parameters, corrosion control, flow in system, and/or determine if other drivers at that location can be mitigated.

Clarification was requested about sampling procedures and the rationale between the 3% vs. the 7% values for service line replacement. EPA staff indicated that the 7% is the value for replacement of lead service lines in the current Lead and Copper Rule (i.e., test out provisions) and that the 3% is the new proposed value based on EPA’s assessment and experience with these water systems and interaction with customers. With regard to sampling procedures, EPA staff noted that all samples were analyzed by certified laboratories using EPA approved methods. Staff further noted that the 7% service line replacement level was probably not being achieved and that the proposed rule was an improvement from past requirements of partial replacements.

Members of the Board expressed concerns that residences with 15 ppb lead levels in drinking water could be added to a list and wait 33 years for their service lines to be replaced. EPA staff indicated that at the minimum rate that may be possible, but the Agency was encouraging systems to prioritize, and that the EPA was expecting a higher rate, as the systems acted in response to customer demands to replace lead service lines. EPA staff indicated that the Agency aimed to establish a feasible technique that was based on EPA’s analysis and experience. Furthermore, EPA staff mentioned that under the proposed regulation, all public systems would be required to inventory all the service lines they serve and identify known and unknown lead service lines. This was the inventory against which any replacement percentage was calculated. EPA staff noted that the next step would be an annual update of the inventory through normal operations. When a system exceeded a trigger level, the system was compelled to agree to a goal for replacing lead service lines.

There was a discussion about the how to manage the challenge of refusal of line replacements and how “in-home” childcare facilities would be addressed in the regulation. EPA staff mentioned that school and childcare testing were separate and distinct from compliance monitoring. Staff noted that additional information was included in the proposed rule. If there was one childcare facility served by lead service lines and part of the sampling pool, then the childcare facility could be subjected to replacement and the EPA recommended prioritizing the replacement for that facility. Staff noted that there were new requirements for collecting

information in childcare facilities. Staff noted that the systems might also sample in home childcare as part of normal sampling.

Referring to slide 22, a member complimented EPA staff for their efforts to evaluate 80,000 public comments and asked how EPA evaluated the comments and how the comments impacted EPA's work. EPA staff noted that 80,000 public comments had been received and that the Agency must review and consider all of them. EPA staff indicated that there were many efficiencies that could be achieved in responding to comments effectively and efficiently (e.g., putting systems in place to effectively respond), but acknowledged that this large number of comments did present challenges.

Other SAB members requested information about the rationale used by the EPA to support the 3% replacement value and its timeframe. EPA staff indicated that the proposed rule required at least 2 years of replacements before water systems could discontinue monitoring. The water systems could discontinue monitoring if they optimized their corrosion control treatments or reoptimized corrosion control because of the entire population.

Members asked questions about how blood lead levels could inform the current regulation. It was noted that the amount of lead coming from water versus other sources was still an uncertainty. Members asked if the EPA could list the specific lead exposure papers used in its analysis and indicate whether the data and papers were publicly available. EPA staff indicated that the Agency's Office of Research and Development (ORD) had worked on that portion of the analysis and noted that studies were used to inform the relationships between blood lead level and IQ. The data sources used in the analysis were included in the economic analysis documentation and the preamble of the proposed rule.

A Board member raised questions about the impact of the phosphate used for corrosion control on algal blooms. EPA staff mentioned that effects on receiving streams had been discussed in an associated analysis but a precise cost was not provided. Staff noted that the Agency had completed work to develop a cost for wastewater facilities as well. Capital and operations were also considered.

There was a discussion regarding communication and the potential confusion between a trigger level versus an action level. Members of the Board noted concerns about having two levels of notification. The members asked about the implementation of public notifications and/or public messaging in instances where both levels were exceeded with different actions. Members noted that, since there is no known "healthy" level of lead, the EPA should clarify the rationale for having a trigger level versus an action level. The Board also asked the EPA staff about the Agency's work with the states to set an annual goal (i.e., every system exceeding a value of zero should work with their state to set a goal to replace service lines). EPA staff explained that the trigger level, first and foremost was established to protect health. Staff noted that the trigger level was part of a corrosion control treatment, which was the best method for protecting health. It addressed health in plumbing materials as well as service lines. Staff noted that systems with corrosion control could reoptimize immediately and perform a study to identify optimum corrosion control measures. Systems and states could work together to identify replacement rates

that were more aggressive and could take advantage of infrastructure replacements in the community to implement actions.

Members also asked about the scientific basis of 10 ppb as a value for the trigger level. EPA staff indicated that the value of 10 ppb was based on a feasibility level. Staff described it as a level that the EPA judges appropriate for several systems to begin actions sooner to reduce lead exposure.

Members asked additional questions about sampling protocols. Issues discussed included how to capture water from service lines and first liter water sampling. Members commented that there was much literature on this topic, such as Lee Becker and Collins 1989. Members commented that sampling in schools was phased-in with up to 3-year lag time, so could be eight years before schools were sampled. This was a concern expressed by multiple members of the Board. Members indicated that sampling in schools should be completed faster.

EPA staff indicated that the Agency was considering various options. For schools, the timeframe included a 3-year implementation period before the rule went into effect to allow a systematic approach among all the childcare facilities and schools that the public water systems serve.

Referring to slides 10 and 18, a member asked about the test procedures and whether the water system should provide a time or schedule for pitcher replacement. EPA staff indicated that the pitcher was required for 3 months after a full line replacement or a partial line replacement (i.e., provide filters for a 3-month period). The test out provision was proposed to be eliminated.

SAB Discussion

Dr. Honeycutt asked SAB and SAB Drinking Water Committee members to deliberate on whether the SAB should review portions of the proposed rule. He asked whether the science had been adequately reviewed. Some members identified areas that could be better articulated by the EPA. Members indicated that the proposed rule was “moving in the right direction.”

Specifically, members mentioned that there were numerous scientific issues underlying some of the critical assumptions of the proposed rule and that those scientific issues should be reviewed by the SAB (i.e., modeling and data used should be peer reviewed). Members also commented that new approaches should be reviewed by the SAB. Members noted that these approaches included not just sampling analysis, but also the social science issues in the education component of the proposed rule.

Additional scientific concerns mentioned by Board members were: 1) the lack of clarity in the proposed rule about the lead-IQ relationship and its evaluation; 2) phosphate issues; 3) treatment device efficiency issues related to points of use (i.e., recent studies had identified additional work needed for devices to work properly and for the public to know that they were working); and 4) the need to review the data related to the voluntary replacement rate. Several members mentioned that the line replacement percentage and discount rates should be reviewed.

Other members commented that the EPA had developed plans to address many of the most serious problems related to lead in drinking water. Some members commented that EPA’s

analysis was adequate and that there was no need for SAB review. They noted that the SAB review could delay the rule. A member agreed that EPA staff had done a good job but commented that there were scientific issues that the SAB should consider. For example, the underlying scientific basis of effectiveness of an educational effort as a mitigation tool could be reviewed by the SAB.

A member asked how the Board would decide whether to review the rule. Dr. Honeycutt indicated the decision would be based on a majority vote. Dr. Honeycutt also indicated that the review would have to be completed soon. He noted that the EPA planned to issue a final rule in the coming summer.

Members commented on the need to review water sampling approaches and the proposed line replacement rate (which had historically been problems with the Lead and Copper rule). Some members indicated that numerous scientific issues merited SAB review (e.g., trigger level basis, water treatment strategy, the MCL, science for estimating benefits and costs, blood lead level as it applies to the proposed rule, among others).

Some policy issues were discussed. Members noted that reducing lead in schools under the proposed rule could be difficult. In this regard, they noted that the responsibility of public water systems was blurred. A member noted that part of the SAB's job was to provide advice on whether proposed changes were scientifically justified. He noted that this included identification of statistical issues.

Dr. Honeycutt then requested motion on whether the chartered SAB and SAB Drinking Water Committee should review the scientific and technical basis of the proposed rule. A motion was made that the SAB review the scientific and technical basis of the proposed rule and a majority of members voted in favor of the motion.

Break

Dr. Honeycutt dismissed the SAB Drinking Water Committee and called for a 5 minute break at 2:19 p.m. (Eastern Time).

EPA Presentation on Proposed Rule - Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review

Following the break, Dr. Honeycutt invited Mr. David Cozzie, Acting Associate Director of the Sector Policies and Programs Division in EPA's Office of Air Quality Planning and Standards (OAQPS) to brief the Board on the Proposed Rule - Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review. Mr. Cozzie delivered a presentation on EPA's proposed policy amendments to the 2012 and 2016 New Source Performance Standards (NSPS) for oil and gas sources. Mr. Cozzie indicated that the proposed amendments to the 2012 and 2016 New Source Performance Standards (NSPS) for oil and gas sources were published on September 24, 2019 and were separate from the proposed technical amendments from September 2018. Mr. Cozzie's presentation,¹¹ posted on the SAB website, emphasized the following points.

Section 111 of the Clean Air Act (CAA) directs EPA to establish standards for stationary sources of air pollution that “may reasonably be anticipated to endanger public health or welfare.” Categories of industrial facilities that endanger public health and welfare are called “source categories.” NSPS have been established for 85 source categories. Section 111(b) of the Clean Air Act details EPA’s authority to regulate new and modified sources. Issued originally in 1979, EPA’s listing for oil and gas only included the production and processing segments. In 2012 and 2016, EPA interpreted the source category to include the transmission and storage segment. In 2012, EPA issued a NSPS intended to reduce volatile organic compounds (VOC) from new, reconstructed and modified sources in the oil and gas sector (2012 NSPS OOOO). In 2016, EPA issued a NSPS intended to reduce VOC and greenhouse gases, in the form of limitations on methane, from a broader set of new, reconstructed and modified sources across the oil and gas sector (2016 NSPS OOOOa). In 2017, EPA announced a reconsideration on technical requirements and implementation challenges of 2016 OOOOa rule and policy review of the 2016 OOOOa.

Mr. Cozzie directed the audience to slide 5 which depicted color coded elements of oil and gas industry from extraction to distribution. This slide depicted in green the sources added by EPA in 2012 for VOCs only; in orange are elements added in 2012 for VOCs and in blue are added in 2016 for both VOCs and methane.

Mr. Cozzie noted that in August 2019, in its primary proposal, the EPA stated that its earlier decision adding the transmission and storage segment was an error because that segment of the industry is functionally separate from production and processing segments. Thus, EPA proposed to remove the transmission and storage segment from the source category (and thus withdraw all standards) and rescind methane from production and processing. Otherwise, EPA would need to make a separate finding that the transmission and storage segment contributed significantly to air pollution. Alternatively, EPA proposed to rescind methane standards from all sources without revising the source category. The reasoning behind the alternative proposal is that methane standards are redundant with VOC standards because they do not provide benefits beyond benefits from VOC standards.

Mr. Cozzie then directed the SAB to Slide 9 which showed how both the primary proposal and the alternative proposal would affect the regulation of different aspects of the oil and gas industry.

Referring to slide 11, Mr. Cozzie explained that EPA was seeking comment on whether EPA should revise the positions it took in the 2016 rule on whether CAA Section 111 required EPA to make a pollutant-specific significant contribution finding for greenhouse gas emissions from the oil and natural gas industry. EPA also sought comment on appropriate criteria to use when determining whether a pollutant may be reasonably anticipated to endanger public health and the environment.

Referring to slide 12, Mr. Cozzie acknowledged that EPA’s 2019 proposal would remove the obligation to regulate methane from existing sources.

Referring to slide 13, Mr. Cozzie noted that the Regulatory Impact Analysis (RIA) was only associated with the primary proposal in which the EPA removed the transmission and storage segment from the source category. He noted that the proposal would result in the oil and gas industry saving \$17 – 19 million/year.

Finally, Mr. Cozzie noted that EPA had held a public hearing in Dallas, Texas and received over 290,000 written comments. He indicated that the public comment period had closed November 25, 2019.

Dr. Honeycutt asked the Board if there were any questions or comments about EPA's presentation. Board members had no specific questions.

Dr. Honeycutt then called for discussion of whether the scientific and technical basis of the proposed rule should be reviewed by the SAB. A member suggested that the EPA's 2019 proposal basically eliminated the Agency's concern about methane from the oil and gas industry. The member questioned whether a recent air quality study from the University of Texas, Austin would come to the same conclusion that EPA did – namely, that regulating VOCs would control methane equally well as a co-benefit. The member noted there was very limited economic incentive to control methane leaks, especially with natural gas priced at \$1.62 per MMBtu (million British thermal units) and that the gas industry had real incentive to leak it and flare it. The member commented that it appeared the EPA was removing any concern for methane.

Other members stated that the EPA's fugitive emissions program was based on gas imaging and the EPA required that leaks be repaired. Some members noted that VOCs impacted ozone in a limited capacity, if at all, so the benefit from VOC reduction was small. Members expressed concern that the EPA was deregulating the pollutant that impacts the environment the most, while retaining VOC regulation which was only of concern in places like Los Angeles and Houston.

In response to comments from various SAB members that several studies indicate that the EPA had been seriously underreporting methane emissions, a member noted that the 2019 proposal applied to new sources going forward. He noted that, although there could be lots of reasons to curb methane emissions, the key phrase was whether it "significantly contributed" to air pollution. He noted that methane emissions from the oil and gas industry were far smaller than all the other sources of methane emissions.

A member asked whether the regulatory impact analysis (RIA) addressed the role of methane in ozone formation and EPA staff responded that the issue was not addressed. Another member questioned why extra methane was considered in the RIA if regulation of methane was redundant. EPA staff indicated that the RIA applied only to the primary proposal which would withdraw all standards from the transmission and storage segment. EPA staff noted that if the alternative proposal were adopted there would be no changes in methane emissions. Another member asked if the \$17-19 million in compliance savings shown in the RIA was the result of the proposal to remove the transmissions and storage segment (and thus, the withdrawal of methane and VOC standards). EPA staff confirmed that it was.

There was additional discussion of climate change effects and other effects associated with the methane emissions at issue. A member stated that since methane was a greenhouse gas, the EPA should be controlling all the methane sources that were problematic, rather than seeking to exclude one because it is a smaller proportion. A member commented that the accounting of methane had been challenged by individuals who had found that emissions were much greater than currently being reported. He noted that there were episodic high emission events that dominated the methane releases.

Another member emphasized the importance of the legal questions associated with the 2019 proposal, explaining that the EPA viewed the regulation of transmission and storage as a legal question under Section 111, regardless of foregone benefits.

Dr. Honeycutt asked SAB members to consider whether the Board should review the proposed amendments to the 2012 and 2016 NSPS (2012 OOOO and 2016 OOOOa).

A member commented on recent controversies over the amount of methane released and the extent of contribution to greenhouse gases. A member commented that she had trouble understanding why the SAB should review this proposal given that there were significant underlying legal questions. Another member explained that the SAB's regulatory review always took place within the context of legal questions. She noted that the SAB should review underlying scientific and technical issues.

A member stated that he had trouble understanding how the SAB would proceed with a scientific review of the proposed rule. Others expressed similar reservations and voiced concerns about recent scientific evidence that methane releases are dominated by underreported episodic releases.

A member commented that the 2019 proposed rule met the SAB's criteria for review. Dr. Honeycutt mentioned that any SAB workgroup formed to review the proposed rule would have to produce a draft report for the full chartered SAB to review by April 20, 2020. Another member stated that he did not think the SAB could undertake such an extensive amount work in 20 days; others expressed agreement with this reservation.

After hearing comments from the SAB, Dr. Honeycutt asked for a motion to decide whether the SAB should review the scientific and technical basis of the proposed rule. A member proposed two votes: one vote for members to indicate that the SAB was declining to review the proposed 2019 amendments to the 2012 OOOO and 2016 OOOOa given time constraints; and another vote to indicate that that the 2019 proposal should be reviewed in the absence of time constraints.

Mr. Thomas Brennan, Director of the SAB Staff Office, said he was working with the Administrator's office so that in future regulatory reviews, the SAB would have advance opportunity to review proposed rules ahead of any regulatory action.

Then, a member moved that SAB indicate its willingness to review the 2019 Proposed Policy Amendments to 2012 and 2016 NSPS for Oil and Gas Sources if sufficient time had been provided to complete the review. Dr. Honeycutt recorded the vote on the motion and determined that the majority of the members had voted in favor of the motion. Dr. Honeycutt then asked

SAB members to vote on a motion to review the 2019 Proposed Policy Amendments to 2012 and 2016 NSPS for Oil and Gas Sources, within the time constraints discussed (i.e., 20 days). The majority of SAB members voted against this motion.

Dr. Honeycutt noted that the votes indicated that a majority of SAB members would have liked to review the proposed rule if they had more time but given time constraints, the proposed rule would not be reviewed by the SAB.

Summary and Next Steps

Dr. Honeycutt reviewed the action items from the teleconference. He indicated that the Board had voted to review the Proposed Lead and Copper Rule (LCR) Revisions. Dr. Honeycutt asked Board members to notify Dr. Armitage via e-mail by Thursday, April 2, 2020 if they wished to serve on a workgroup to develop the draft report on EPA's proposed action. He noted that the SAB Staff Office would contact EPA's Office of Water to request information about specific charge questions. Dr. Honeycutt indicated that a teleconference of the Chartered SAB and SAB Drinking Water Committee would be held on May 11, 2020 to discuss the workgroup's draft report on the Lead and Copper Proposed Rule. Dr. Honeycutt noted that the Board had decided not to review the 2019 Proposed Policy Amendments to 2012 and 2016 NSPS for Oil and Gas Sources.

Meeting adjourned

Dr. Armitage indicated that a Federal Register notice had been published announcing the next meeting date. He then adjourned the meeting at approximately 5:00 p.m. (Eastern Time).

Respectfully Submitted:

/s/

Dr. Thomas Armitage
Designated Federal Officer
for the Chartered SAB

Certified as Accurate:

/s/

Dr. Michael Honeycutt
Chartered SAB Chair

June 30, 2020

Date

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by committee members during the course of deliberations within the meeting. Such ideas, suggestions, and deliberations do not necessarily reflect definitive consensus advice from the panel members. The reader is cautioned to not rely on the minutes to represent final, approved, consensus advice and recommendations offered to the Agency. Such

advice and recommendations may be found in the final advisories, commentaries, letters, or reports prepared and transmitted to the EPA Administrator following the public meetings.

Materials Cited:

The following meeting materials are available on the SAB website (<http://www.epa.gov/sab>) at the page for the March 30, 2020 teleconference. The direct web link is:

<https://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/01cc2f1acf83a41685258513005341a8!OpenDocument&Date=2020-03-30>

¹ Proposed Rule Titled: National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions.

² Proposed Rule Titled: Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review.

³ SAB Roster.

⁴ SAB Drinking Water Committee Roster.

⁵ Agenda.

⁶ List of public speakers.

⁷ Comments on National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions. Submitted by Mekela Panditharatne.

⁸ Comments on the Proposed Rule Titled Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review. Submitted by Isabel Carey, Institute for Policy Integrity, New York University School of Law.

⁹ Questions to be Considered in Deciding Whether the SAB Should Review the Scientific and Technical Basis of a Proposed Rule - Material Provided by SAB Chair to SAB Members.

¹⁰ EPA Presentation: Proposed Lead and Copper Rule Revisions. Mr. Eric Burneson, EPA Office of Water.

¹¹ EPA Presentation: Proposed Policy Amendments to 2012 and 2016 New Source Performance Standards (NSPS) for Oil and Gas Sources

Attachment A: Additional meeting attendees who requested the teleconference call-in number.

Name	Affiliation
Roger Arnold	Hazen and Sawyer
Tina Bahadori	EPA
Lara Beaven	Inside EPA
Bryan Bloomer	EPA
James Brown	EPA
Laura Bloomer	Harvard Law School
Eric Burneson	EPA
Peter Butkovich	Dykema Gossett, PLLC
Isabel Carey	Institute for Policy Integrity, New York University School of Law
Jean Chemnick	E&E News
Jessica Christy	EDF
David Cozzie	EPA
Leslie Darman	EPA
Chris Dockins	EPA
Glenn Farber	EPA
Lynn Flowers	EPA
Jeffrey Paul Fralick	New York State Office of the Attorney General
Andrew Geller	EPA
Alex Guillen	Politico
Eric Helm	EPA
Andrew Kireta, Jr.	Copper Development Association, Inc.
Heather Klemick	EPA
Kavita Lesser	U.S. Department of Justice
Kevin Letterly	ASDWA
Lee Logan	Inside EPA
Darrem Lyte	EPA
Michelle Mabson	Earthjustice
Ryan McDaniel	Los Angeles Department of Water
Samdra Meier	Environmental Energy Alliance of New York
Roger Miksat	Battery Council International
Caitlin Miller	Earthjustice
Michelle Muska	EPA
Suzanne Novak	Earthjustice
Oluwaseun Ogbeni	Los Angeles Department of Water
Mekela Panditharatne	Earthjustice
Ona Papageorgiou	NYSDEC
Sean Reilly	E&E News
Cindy Roberts	EPA
Blake Robinson	Mutch & Associates

Name	Affiliation
Patsy Root	IDEXX Water
Catherine Rubino	U.S. Department of the Navy
Lesley Schaaff	Hess Corporation
Manthan Shah	EPA
Nicole Shao	EPA
Annie Snider	Politico
Raymond Stalter	New York ISO
David James Thomas	EPA
Janie Thompson	House Science Committee
Eric Tiemeyer	Energy Transfer
Matthew Todd	API
Rogelio Tornero-Velez	EPA
Tamara Ward	E&E News
Melissa Weitz	EPA
Valerie Zartarian	EPA