U.S. Senate Committee on Environment and Public Works
Hearing entitled, "Hearing on the Nomination of Andrew Wheeler to be Administrator of the Environmental Protection Agency"
January 16, 2019
Questions for the Record for Mr. Andrew Wheeler

Ranking Member Carper:

Your responses to questions for the record from the Committee's August 1, 2018 hearing left much to be desired. Many questions did not receive specific responses, which is troubling given that the Committee did not receive your answers for four months. Please ensure that your responses to these questions are not similarly deficient. Moreover, in light of the Agency's insistence on moving forward quickly with your confirmation hearing and the use of furloughed staff to prepare you for it, please do not attempt to justify a failure to provide any of the responses or requested materials on the shutdown, absent a concurrent request that further action on your nomination be postponed until after the EPA re-opens.

I appreciate your questions for the record following up on my January 16, 2019, confirmation hearing. The EPA has demonstrated that it takes inquiries from Congress very seriously. The Agency provided a thorough job of responding to the Questions for the Record from my prior confirmation hearing, and we are doing the same here while protecting our ability to complete reasoned and deliberative rulemaking on the actions that are in process. I am discouraged to learn from the Questions for the Record for this hearing that you found my answers deficient from a previous hearing although that concern has not been raised during our handful of meetings and discussions with you since that time. While maintaining those important executive branch equities, I will ensure that the longstanding practice of providing timely responses to Congressional inquiries continues, including producing documents as appropriate. If confirmed, I look forward to continuing to work with you and your staff to provide the information that Congress needs to perform its proper legislative function.

Questions on the Trump Administration's Proposed Fuel Economy and Greenhouse Gas Tailpipe Standards Rollback

I asked you a number of questions on this topic following your testimony at the August 1, 2018 hearing. You failed to provide specific responses. Please do so now promptly, and answer the additional questions, especially in light of your statement at the hearing that "We know that we need to finalize our [fuel economy and greenhouse gas tailpipe standards] proposal by March 30."

1. During the development of the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-26 Passenger Cars and Light Trucks", EPA officials met with OMB and NHTSA officials to convey their concerns about the proposal several times. They left numerous documents with OMB officials that are now part of the rulemaking docket[1].These

[1] https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0453

documents indicate that there are significant problems with the model that was used by NHTSA to develop the proposal to freeze fuel economy and greenhouse gas tailpipe standards from 2020-26. One such example is a document titled "Email_5_-_Email_from_William_Charmley_to_Chandana_Achanta_-_June_18,_2018%20(1).pdf". This 122 page long document includes a number of PowerPoint presentations EPA made to OMB and NHTSA staff along with additional documentation and analysis.

a. The document notes that "EPA analysis to date shows significant and fundamental flaws in CAFE model (both the CAFE version and the "GHG version")…. These flaws make the CAFE model unusable in current form for policy analysis and for assessing the appropriate level of the CAFE or GHG standards." Do you believe that each of these flaws were fully remedied before the rules were proposed? If so, please list the specific remedies that addressed each of EPA's concerns. If not, will you ensure that all necessary technical input from EPA's Office of Transportation and Air Quality is incorporated into the final rule in order to ensure that the rule cannot be successfully over-turned in court on grounds that the model on which it is based is significantly or fundamentally flawed?

As I explained in responding to a similar question arising out of my August 1, 2018 hearing before the Committee, the documents you reference were made available by EPA in the rulemaking docket, because they are part of the documentation of interagency review of the draft proposed rule. EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts.

In particular, with respect to the CAFE model, I would point out, that, as outlined in the Notice of Proposed Rulemaking, available at Docket No. EPA–HQ–OAR–2018–0283, having reviewed comments on the subject and having considered the matter fully, the agencies determined it is reasonable and appropriate to use DOE/Argonne's model for full-vehicle simulation, and to use DOT's CAFE model for analysis of regulatory alternatives. Using the CAFE model allows consideration of the following factors: the CAFE model explicitly evaluates the cost of compliance for each manufacturer, each fleet, and each model year; it accounts for lead time necessary for compliance by directly incorporating estimated manufacturer production cycles for every vehicle in the fleet, ensuring that the analysis does not assume vehicles can be redesigned to incorporate more technology without regard to lead time considerations; it provides information on safety effects associated with different levels of standards and information about many other impacts on consumers, and it calculates energy impacts (i.e., fuel saved or consumed) as a primary function, besides being capable of providing information about many other factors within EPA's broad Clean Air Act discretion to consider. *See* 83 Fed. Reg. 43,000-01.

As work on this rule is ongoing, it would not be appropriate for me to comment on whether, as you put it, "each of these flaws were fully remedied before the rules were proposed." We will be developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

b. One of the main contributors to the NHTSA conclusions that the augural standards would cause thousands of additional deaths is NHTSA's "consumer choice" module, which asserts that making the fleet more fuel efficient will cause people to keep their less safe, older vehicles for longer, and that this will mean there are more unsafe vehicles on the road (because newer vehicles have more safety technologies). The document states that EPA believed this NHTSA model was flawed, because it predicts an additional 26 million non-existent vehicles would be in the 2016 fleet and 46 million additional non-existent vehicles in the 2030 fleet. For context, this would represent a 15-20% increase in registered vehicles. The document also notes that this problem appeared to be un-remedied several months after EPA first raised it. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the consumer choice model as it predicts fleet turnover, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

c. The document also found that NHTSA's consumer choice model predicts an unexplained, and apparently fictitious 10-15% increase in vehicle miles traveled (VMT). Specifically, the model somehow predicts people will drive an extra 239 billion miles in 2016 and 302 billion more miles in 2030. The increased deaths associated with higher efficiency standards in the NHTSA model are highly correlated to VMT (more driving equals more accidents equals more deaths). It would thus seem that EPA believes that the NHTSA safety numbers are predicated on an entirely fictitious driving scenario. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the consumer choice model as it predicts VMT, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

d. The document also notes that NHTSA does not accurately model the manner in which automobile manufacturers trade credits as part of their compliance strategies, observing that NHTSA does not assume that compliance credits are traded between manufacturers' car and truck fleets (which is the manufacturers' current practice), and that this has the effect of over-estimating compliance costs. Was this modeling problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of credit trading, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this modeling problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

e. The document observes that NHTSA's model overestimates the costs of particular technologies compared to their actual costs and use in the real world. The model also reportedly selects the most expensive technology packages to meet the standards, which overestimates the most cost-effective ways to do so by $1-2,000 per vehicle. Do you agree that manufacturers would be more likely to select the most cost-effective set of technologies with which to meet standards, rather than the least cost-effective set of technologies? If not, why not? Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of technology cost and technology selection, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

f. The document stated that the NHTSA model omitted the benefits of some fuel-efficient technologies entirely, while others were erroneously inputted into the model. For example, 'start/stop' technology, a technology that causes engines to automatically shut off while vehicles are stopped in traffic (and thus use no fuel), is estimated to have a negative effect on fuel-efficiency, which is simply not plausible. Were these problems remedied in the proposed rule? If so, how? If not, will you ensure that they are remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of fuel-efficient technologies, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "these problems [were] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

g. The document observed that NHTSA's model appears to add vehicle miles travelled in unexplained ways. For example, it observed that as many as 25 billion more miles of driving were predicted in a given year, even when the rebound effect (a measure of how much extra driving consumers are expected to do as a result of having more fuel-efficient vehicles) was set to 0 percent. The document observes that NHTSA's model actually predicts less driving when the rebound effect was set to 20 percent (meaning 20% more driving by consumers in more fuel-efficient vehicles would have been included in the model) than when it was kept to 0 percent. This suggests that NHTSA's model is incapable of predicting anything accurately, separate and apart from whether one agrees with its policy premise. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of VMT, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

h. The document states that NHTSA's "Proposed standards are detrimental to safety, rather than beneficial" once NHTSA's modeling errors were corrected. In fact, EPA found that the proposed standards result in "an average increase of 17 fatalities per year in VYs 2036-2045" relative to the current standards. Do you agree with this conclusion? If not, why not?

With respect to the modeling of safety effects, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to respond to your query whether I "agree with this conclusion." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

i. The document states that the NHTSA model projects that the current standards result in 8,000 fewer new automobiles sold annually in CYs 2021-2032, but that the used vehicle fleet would grow by 512,000 vehicles per year. That means that for every new fuel-efficient vehicle that consumers do not purchase (because NHTSA predicts their costs will be too high), somehow an additional 60 used vehicles will remain in the fleet. Do you agree that this scenario is simply implausible in the real world, as the EPA document points out? If not, why not? Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of new sales and fleet size, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether I "agree that this scenario is simply implausible in the real world." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

j. In draft comments submitted to OMB on June 29, EPA commented that more than 90% of the net benefits for which the proposed rule to freeze fuel economy and greenhouse gas tailpipe standards takes credit are in fact benefits associated with vehicles manufactured prior to 2021. EPA attributed this to NHTSA's flawed consumer choice model, and questioned whether these could technically be attributable to the actual post-2021 rule. What would the net benefits of the preferred alternative— and for each of the other seven alternatives included in the NPRM — be if the agencies were to compare the costs to the benefits of cars manufactured within the MY 2021-29 cohort timeframe?

With respect to the modeling of benefits, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query regarding the "net benefits of the preferred alternative" and the other alternatives. We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

2. Please provide a list of all EPA employees or contractors who have been working on the fuel economy and greenhouse gas tailpipe standards rule since December 29, 2018, including a description of what precisely each individual has been doing and how much time they have spent on each task.

I and other Senate-confirmed senior managers have conferred on this rule. No career employees worked on the rulemaking during the shutdown.

3. I have been informed that on July 20, 2018, prior to the finalization and public release of the proposed roll-back, you received a briefing from EPA's career staff that consisted of about 20 slides (and a 3-page appendix) and lasted about an hour. The briefing described EPA career staff's significant concerns with the proposed rule, including their concern that the proposal "does not include EPA's technical assessment or input," that NHTSA failed to incorporate any of EPA's technical analysis or feedback, and that it was clear to EPA that "NHTSA doesn't want to engage EPA on technical aspects of NHTSA's analysis." That briefing also included the staff's request that EPA's logo be removed from the technical analysis document used to support the proposed rollback in light of the fact that no EPA input was included in it.

a. Please provide me with a copy of the briefing slides.

The requested briefing slides include information that relates to a pending or contemplated action by EPA and are therefore deliberative and pre-decisional. We will provide any decisional documents in the administrative record for future final actions and can supply the final version at that time.

b. You have repeatedly asserted in both public and private meetings that the proposed rollback will save lives. For example, in your January 16 nominations hearing you stated that "Under our proposal, we have submitted that there will be 1,000 lives saved a year under our CAFE proposal. I neglected to mention that earlier, but I think that is very important for everyone to understand." Please provide me with a detailed explanation for why you have seemingly discounted the views and technical input of EPA's career staff when making these statements.

I greatly value the views and technical input of EPA career staff. I have not in any way discounted them. As to the analysis of the vehicle safety issues you reference, EPA is working in conjunction with NHTSA on this joint rulemaking, and NHTSA is taking the lead with respect the safety implications at issue.

Further, I would point out, that, as outlined in the Notice of Proposed Rulemaking, available at Docket No. EPA–HQ–OAR–2018–0283, having reviewed comments on the subject and having considered the matter fully, the agencies determined it is reasonable and appropriate to use DOE/Argonne's model for full-vehicle simulation, and to use DOT's CAFE model for analysis of regulatory alternatives. Using the CAFE model allows consideration of the following factors: the CAFE model explicitly evaluates the cost of compliance for each manufacturer, each fleet, and each model year; it accounts for lead time necessary for compliance by directly incorporating estimated manufacturer production cycles for every vehicle in the fleet, ensuring that the analysis does not assume vehicles can be redesigned to incorporate more technology without regard to lead time considerations; it provides information on safety effects associated with different levels of standards and information about many other impacts on consumers, and it calculates energy impacts (i.e., fuel saved or consumed) as a primary function, besides being capable of providing information about many other factors within EPA's broad Clean Air Act discretion to consider. *See* 83 Fed. Reg. 43,000-01.

c. In your testimony, you also stated that the proposed rollback "would decrease the cost of a new car by $2,300." It is my understanding that the briefing you received on July 20, 2018 included a chart showing that NHTSA's per vehicle cost estimates associated with the current standards were more than double EPA's estimates. Please provide me with a detailed explanation for why you have seemingly discounted the views and technical input of EPA's career staff when making these statements.

Again, I have discounted neither the views nor the technical input provided by EPA career staff. As I previously noted, EPA and NHTSA are working collaboratively in this joint rulemaking effort. Further, with respect to the cost modeling, I would point out, that, as outlined in the Notice of Proposed Rulemaking, available at Docket No. EPA–HQ–OAR–2018–0283, having reviewed comments on the subject and having considered the matter fully, the agencies determined it is reasonable and appropriate to use DOE/Argonne's model for full-vehicle simulation, and to use DOT's CAFE model for analysis of regulatory alternatives. Using the CAFE model allows consideration of the following factors: the CAFE model explicitly evaluates the cost of compliance for each manufacturer, each fleet, and each model year; it accounts for lead time necessary for compliance by directly incorporating estimated manufacturer production cycles for every vehicle in the fleet, ensuring that the analysis does not assume vehicles can be redesigned to incorporate more technology without regard to lead time considerations; it provides information on safety effects associated with different levels of standards and information about many other impacts on consumers, and it calculates energy impacts (i.e., fuel saved or consumed) as a primary function, besides being capable of providing information about many other factors within EPA's broad Clean Air Act discretion to consider. *See* 83 Fed. Reg. 43,000-01.

Questions on EPA's Proposed Mercury and Air Toxics Standards Rollback

4. In EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, it states that, "while there are unquantifiable HAP [hazardous air pollutant] benefits and significant monetized PM co-benefits associated with MATS, the Administrator has concluded that the identification of these benefits is not sufficient, in light of the gross imbalance of monetized costs and HAP benefits, to support a finding that is appropriate and necessary to regulate EGUs under CAA section 112."[2]

[2]EPA, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units -- Reconsideration of Supplemental Finding and Residual Risk and Technology Review" (Dec 2018), https://www.epa.gov/sites/production/files/2018-12/documents/frnmatsfindingandrtr_12_2018wdisc.pdf; Hereafter called EPA Revised Supplemental Finding Proposal, 2018.

a. The proposed revision state that, "with the MATS rule in place, the estimated inhalation cancer risk to the individual most exposed to actual emissions from the source category is 9-in-1 million." Such a risk is higher than the 1-in-1 million threshold provided in the Clean Air Act as the threshold to delist a source category. Do any documents in the proposal docket estimate what the inhalation cancer risk would be if the MATS rule was rescinded?

EPA has not proposed to revise the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor has it proposed to rescind or weaken the emission standards to which those units are currently subject. The proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review, were it to be finalized, would have no effect on mercury emissions reduction levels required under the existing MATS rule.

b. The Clean Air Act does not permit the delisting of any source category with emissions that pose a cancer risk greater than 1 in 1,000,000 to the most exposed individual, regardless of the cost. Why does the proposal fail to regulate EGUs under Section 112 which pose a far greater cancer risk?

The proposal does not "fail to regulate EGUs"; EPA has proposed to maintain the existing standards. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject.

c. Given that we already know the inhalation cancer risk is greater than 1 in 1,000,000, and EPA's proposal asserts that this is "not sufficient" to determine it is "appropriate and necessary" to regulate EGUs under Section 112, what would in EPA's view be a "sufficient" cancer risk to deem that it is "appropriate and necessary" to regulate?

EPA's proposed analysis of the statutory term "appropriate and necessary" is contained in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. The language that you quote appears in EPA's discussion of this statutory provision at pages 26-31 and refers to the relationship between the monetized and unmonetized direct and indirect costs and benefits of the 2011 MATS rule, as informed by the Supreme Court's opinion in *Michigan v. EPA*. It is important to note that the EPA is not proposing to remove, or delist,electric generating units from the list of source categories subject to regulation under Section 112, nor has it proposed to rescind or weaken the emission standards to which those units are currently subject. The analysis presented in the NPRM specifically addresses the EGU-specific provision in 112(n) and does

not relate to the references to 1 in 1,000,000 cancer risk found in the delisting provision at section 112(d)(9) and the residual risk review provision at section 112(f)(2).

d. How did the agency weigh "unquantifiable HAP benefits" in the proposal's formal cost-benefit analysis to ensure benefits that could not be monetized are not underrepresented?

With respect to the relationship between unquantifiable HAP benefits and monetized benefits, the bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

As you will see, the accompanying memorandum presents a summary of costs and the target pollutant benefits that EPA views as pertinent to the appropriate and necessary finding under section 112(n)(1)(A). Target pollutant benefits consist of the quantified and unquantified benefits from reductions in hazardous air pollutants. EPA also estimated that the MATS rule would result in ancillary benefits from the concomitant reduction of non-target pollutants. These include the quantified PM2.5 co-benefits and other unquantified co-benefits that occur as a result of reductions of non-HAP emissions. However, for reasons described in the preamble and based on the specific statutory direction in 112(n)(1)9A), EPA proposes that the HAP benefits, both quantified and unquantified, are the most relevant portion of the analysis for purposes of the appropriate and necessary finding. Therefore, in evaluating the pertinent impacts of this proposed action, EPA has focused on the target pollutant impacts. EPA has proposed to conclude that the quantifiable portion of the target HAP benefits are not even moderately commensurate with the compliance cost of the rule, as the difference between costs and HAP benefits is substantial using either discount rate.

e. Please provide detailed information on all the unquantifiable HAP benefits that were considered in this proposal and explain why EPA could not ascribe a dollar value to these benefits.

With respect to unquantifiable HAP benefits, the bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

As discussed in the NPRM, even with the substantial monetized particulate matter co-benefits and the significant unquantified HAP benefits associated with MATS, the gross disparity between monetized costs and HAP benefits, which we believe to be the primary focus of the Administrator's determination in Clean Air Act section 112(n)(1)(A), is too large to support an affirmative appropriate and necessary finding. As explained in the MATS Regulatory Impact Analysis, the only health benefit attributed to reducing mercury emissions that the EPA could quantify and monetize was IQ loss in children born to a subset of recreational fishers who consume fish during pregnancy. The EPA also identified benefits associated with regulation of HAP from EGUs that could not be quantified. These effects include impacts of mercury on human health (including neurologic, cardiovascular, genotoxic, and immunotoxic effects), a variety of adverse health effects associated with exposure to certain non-mercury HAP (including cancer, and chronic and acute health disorders that implicate multiple organ systems such as the lungs and kidneys), and effects on wildlife and ecosystems.

5. If a benefit cannot be monetized, do you consider it to be worth less than a benefit that can be monetized? If so, why? If not, why not?

As discussed in the answer to the previous question, EPA evaluated monetized and non-monetized costs and benefits in its NPRM. How EPA treats non-monetized benefits in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review is explained in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant

benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

6. When the 1990 Clean Air Act Amendments were written – which included the current version of Section 112(n)(1)(A) of the Clean Air Act - there were few, if any, quantifiable data available on cancer risks of air toxics and no quantifiable data whatsoever available for non-cancer risks, like birth and neurological defects.[3] Despite the inability to put a dollar amount on the benefits of reducing these air toxics, Congress still found it necessary to require EPA to pursue robust regulations to address major sources of air toxics emissions. At the same time, Congress indicated that it was well aware of the limitations of relying exclusively on cost-benefit analysis when assessing air toxics. In the Senate Committee report on S. 1630 in the 101st Congress, it states, "[T]he public health consequences of substances which express their toxic potential only after long periods of chronic exposure will not be given sufficient weight in the regulatory process when they must be balanced against the present day costs of pollution control and its other economic consequences.[4]" Yet, in EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, the agency based the decision to reverse its "appropriate and necessary" finding solely on a formal cost-benefit analysis that does not incorporate this clear Congressional intent.

    a. Where in the 1990 CAA's legislative history does EPA believe that Congress required the agency to conduct a formal cost-benefit analysis to make an "appropriate and necessary" determination? Please provide a citation to the relevant portion of the legislative history.

    With respect to legislative history, the bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM currently available at this link discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Of particular note, the December 2017 NPRM, in discussing the 2016 supplemental "appropriate and necessary" analysis, states:

[3] Legislative History 1990 Clean Air Act Amendments, H.Rept 101-490 Part 1, 101st Congress (1989-1990).
[4] Legislative History 1990 Clean Air Act Amendments, S.Rept 101-228, 101st Congress (1989-1990).

"The EPA's justification for its equal reliance on the co-benefits of non-HAP emissions when setting the MATS standards in its CAA section 112(n)(1)(A) determination was flawed. The Agency erred in concluding that the statutory text of CAA section 112(n)(1)(A) and the legislative history of CAA section 112 more generally 'expressly support[ed]' the position that it was reasonable to consider co-benefits, and give equal weight to those co-benefits, in a CAA section 112(n)(1)(A) appropriate and necessary finding. 81 FR 24439. The 2016 Supplemental Finding pointed to CAA section 112(n)(1)(A)'s directive to 'perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of [HAP] after imposition of the requirements of [the CAA],' and noted that the requirement to consider co-benefit reduction of HAP resulting from other CAA programs highlighted Congress' understanding that programs targeted at reducing non-HAP pollutants can and do result in the reduction of HAP emissions. *Id.* The finding also noted that the Senate Report on CAA section 112(d)(2) recognized that maximum achievable control technology (MACT) standards would have the collateral benefit of controlling criteria pollutants. *Id.* However, these statements acknowledging that reductions in HAP can have the collateral benefit of reducing non-HAP emissions and vice versa, provides no support for the proposition that any such co-benefits should be the Agency's primary consideration when making a finding under CAA section 112(n)(1)(A). Indeed, it would be highly illogical for the Agency to make a determination that regulation under CAA section 112, which is expressly designed to deal with HAP, is justified principally on the basis of the criteria pollutant impacts of these regulations. That is, if the HAP-related benefits are not at least moderately commensurate with the cost of HAP controls, then no amount of co-benefits can offset this imbalance for purposes of a determination that it is appropriate to regulate under CAA section 112(n)(1)(A). *Cf. Michigan*, 135 S. Ct. at 2707 ('One would not say that it is even rational, never mind "appropriate," to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits.')."

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"In sum, the Agency did not provide any meaningful support for its conclusion that the statutory text and legislative history support placing consideration of co-benefits in a CAA section 112(n)(1)(A) determination on equal footing with the consideration of HAP-specific benefits and, as explained below, the statutory text strongly supports the use of a different approach."

b. Do you agree with Congress' assessment that the benefits of reducing air toxics are not given significant weight in a formal cost-benefit analysis because it is difficult, and sometimes impossible, to put a dollar value on the benefits of reducing air toxic emissions? If not, why not? If so, why?

Regarding this question, with respect to cost-benefit analysis of air toxic emissions reductions, I would direct your attention in particular, to pages 29-31 of the .pdf version of the NPRM (footnotes omitted):

"The total cost of compliance with MATS ($7.4 to $9.6 billion annually) vastly outweighs the monetized HAP benefits of the rule ($4 to $6 million annually). Even with the substantial monetized PM co-benefits and the significant unquantified HAP benefits associated with MATS, the gross disparity between monetized costs and HAP benefits, which we believe to be the primary focus of the Administrator's determination in CAA section 112(n)(1)(A), is too large to support an affirmative appropriate and necessary finding. As explained in the MATS RIA, the only health benefit attributed to reducing Hg emissions that the EPA could quantify and monetize was IQ loss in children born to a subset of recreational fishers who consume fish during pregnancy. The EPA also identified benefits associated with regulation of HAP from EGUs that could not be quantified. These effects include impacts of Hg on human health (including neurologic, cardiovascular, genotoxic, and immunotoxic effects), a variety of adverse health effects associated with exposure to certain non-Hg HAP (including cancer, and chronic and acute health disorders that implicate multiple organ systems such as the lungs and kidneys), and effects on wildlife and ecosystems. The EPA acknowledges the importance of these benefits and the limitations on the Agency's ability to monetize HAP-specific benefits. The EPA agrees that such benefits are relevant to any comparison of the benefits and costs of a regulation. Because unquantified benefits are, by definition, not considered in monetary terms, the Administrator must evaluate the evidence of unquantified benefits and determine the extent to which they alter any conclusions based on the comparison of monetized costs and benefits. The MATS RIA accounts for all the monetized and unquantified benefits of the rule, and the EPA's proposed approach to the cost-benefit analysis in the RIA does not discount the existence or importance of the unquantified benefits of reducing HAP emissions. Instead, after fully acknowledging the existence and importance of such benefits, the EPA proposes to conclude that substantial and important unquantified benefits of MATS are not sufficient to overcome the significant difference between the monetized benefits and costs of this rule. As noted, the unquantified HAP-related benefits of MATS involve only a limited set of mercury and other HAP-related morbidity effects in humans and ecosystems."

7. As mentioned in the previous question, EPA appears to be ignoring Congressional intent when it comes to making "appropriate and necessary" determinations by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act's requirements, please state what you consider to be a safe level of exposure to a carcinogenic hazardous air pollutant.

   I disagree that EPA is "ignoring [c]ongressional intent" or "failing to follow the Clean Air Act's requirements" in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review. For an explanation of EPA's position regarding these matters, I would direct your attention to the explanation provided in the NPRM signed on December 27, 2018, and which will be available in the supporting documents in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM currently available at the link discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Particularly relevant passages are set forth in response to Question 6 above.

8. As mentioned in question #6, EPA appears to be ignoring congressional intent when it comes to making "appropriate and necessary" determinations by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act, please state what you consider to be a safe level of exposure to an acid gas hazardous air pollutant.

   I disagree that EPA is "ignoring congressional intent when it comes to making 'appropriate and necessary' determinations" or "failing to follow the Clean Air Act" in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review. For an explanation of EPA's position regarding these matters, I would direct your attention to the explanation provided in the NPRM signed on December 27, 2018, and which will be available in the supporting documents in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Particularly relevant passages are set forth in response to Question 6 above.

9. As mentioned in question #6, EPA appears to be ignoring congressional intent when it comes to making "appropriate and necessary" determinations" by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act, please state what you consider to be a safe level of exposure to a heavy metal hazardous air pollutant?

   I disagree that EPA is "ignoring congressional intent when it comes to making 'appropriate and necessary' determinations" or "failing to follow the Clean Air Act" in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review. For an explanation of EPA's position regarding these matters, I would direct your attention to the explanation provided in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Particularly relevant passages are set forth in response to Question 6 above.

10. EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards claims the proposal does not, "present a disproportionate risk to children.[5]"

    a. What analysis in the docket shows that rescinding or weakening MATS is not a threat to children's health?

       EPA is not rescinding or weakening the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor proposing to rescind or weaken the emission standards to which those units are currently subject. Accordingly, the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review, were it to be finalized, would present no "threat to children's health."

[5] EPA Revised Supplemental Finding Proposal, 2018.

b. What analysis in the docket shows that the benefits of reducing mercury exposure to children from our nation's largest source of mercury is "insufficient" to trigger a determination that it is "appropriate and necessary" to regulate EGUs under Section 112 of the Clean Air Act?

I direct your attention to the document entitled "Residual Risk Assessment for the Coal- and Oil-Fired EGU Source Category in Support of the 2019 Risk and Technology Review Proposed Rule" which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

11. Are there currently any EGUs that are not compliant with the Mercury and Air Toxics Standards rule? If so please provide me with a list.

I understand that numerous coal-fired units shut down in whole or in part because of the costs of MATS compliance. Of those that remain operational, certain units firing eastern bituminous coal refuse may have received extensions of state requirements until early 2019. The MATS proposed rule requested comment on several important issues related to these units.

12. Is EPA aware of any blackouts, brownouts or extreme retail consumer price spikes that occurred as a direct result of the Mercury and Air Toxics Standards rule? If so, please share the analysis that demonstrates the connection of these events with the MATS rule.

The direct and indirect compliance cost of MATS measures are in the billions of dollars. It is my understanding that electricity consumers ultimately bear this cost.

13. Prior to implementation of the MATS rule, there were more mercury fish consumption advisories in this country than any other chemical or pollutant combined.

a. Are there still fish consumption advisories for mercury in this country? If so, please provide copies.

Yes. While EPA does not comprehensively track all advisories, States, territories, and tribes provide advice on fish caught in waters in their jurisdiction. EPA has compiled contact information and website for all of these entities and their advisories at: https://fishadvisoryonline.epa.gov/Contacts.aspx. More information on Fish and Shellfish Advisories and Safe Eating Guidelines is available at:

https://www.epa.gov/choose-fish-and-shellfish-wisely/fish-and-shellfish-advisories-and-safe-eating-guidelines.

b. How many states currently have one or more fish consumption advisories for mercury?

States, territories, and tribes provide advice on fish caught in waters in their jurisdiction. EPA has compiled contact information and website for all of these entities and their advisories at: https://fishadvisoryonline.epa.gov/Contacts.aspx.

c. Do you believe consuming mercury-laden fish poses any risk to pregnant women or their unborn babies in this country? If so, why? If so, what is the risk?

I believe that consuming mercury-laden fish poses risk to pregnant women or their unborn babies. More information on these risks is available at: https://www.epa.gov/mercury/health-effects-exposures-mercury.

d. In the docket for the 2018 proposed revision to the Supplemental Cost Finding for MATS, what data does EPA provide that led you to believe there was not a "sufficient" mercury risk from power plants to deem it "appropriate and necessary" to regulate EGUs under Section 112 of the Clean Air Act?

I direct your attention to the document entitled "Residual Risk Assessment for the Coal- and Oil-Fired EGU Source Category in Support of the 2019 Risk and Technology Review Proposed Rule" which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

14. In 2011, were coal-fired EGUs the largest source of unregulated mercury pollution in this country? If yes, please include by what order of magnitude coal plants were the largest source over other sources.

In the final MATS rule in 2012, EPA stated: "In 2005, U.S. EGUs emitted 50 percent of total domestic anthropogenic Hg emissions . . . ." (77 FR 9310). This figure did not include non-anthropogenic sources, including volcanic eruptions and emissions from the ocean, or substantial international sources. Estimates of annual global mercury emissions from both natural and anthropogenic sources are in the range of 5,000 to 8,000 metric tons per year, while 2011 U.S. anthropogenic mercury emissions were 52 tons.

Information responsive to your questions may be found in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. More information on mercury emissions can also be found in EPA's National Emissions Inventory at: https://www.epa.gov/air-emissions-inventories.

15. In EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, the agency is, "soliciting comment, however, on whether the EPA has the authority or obligation to delist EGUs from CAA section 112(c) and rescind (or to rescind without delisting)" the Mercury and Air Toxics Standards (MATS) Rule.[6]

    a. If the agency decides to delist "EGUs from CAA section 112(c)," which I do not believe it has the authority to do, would EPA have the authority to issue mercury and air toxics standards for the utility sector under Section 112 of the Clean Air Act, and would utilities legally be required to run control technologies to meet MATS?

    EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, EGUs from Section 112. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants, EPA is proposing to conclude that reversing the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list.

    b. If the agency rescinds the MATS rule, which I do not believe EPA has the authority to do, would that not only weaken the standards, but remove them altogether? If MATS is removed, would utilities have any legal responsibility to run currently-implemented control technology used to comply with MATS?

    EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, EGUs from Section 112. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants, EPA is proposing to conclude that the reversal of the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list.

[6] EPA Revised Supplemental Finding Proposal, 2018.

16. During your confirmation hearing, several members expressed concerns about EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards. During an exchange on this issue with Senator Cardin, you stated that, "on MATS, I don't think you can roll back a regulation that has been fully implemented. And the MATS requirements for the pollution control equipment has been fully implemented. And I don't believe, I honestly do not believe that that equipment will be turned off or removed under our proposal."

    a. If you "don't think you can roll back a regulation that has been fully implemented" as you stated to Senator Cardin during your confirmation hearing, then why is your agency requesting comment on EPA's authority and potential obligation to delist EGUs from Section 112 of the Clean Air Act and/or rescind the MATS rule?

    EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, EGUs from Section 112. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at the link, EPA is proposing to conclude that the reversal of the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list. It is appropriate for EPA to take account of, and seek comment on, issues of relevance to the proposed action, in the interests of increasing the legal defensibility and policy soundness of any final determination in this matter.

    b. Have the courts ever vacated an EPA rule that has been implemented? If yes, which rules, and did it ever result in control technology being uninstalled or turned off?

    Over the years, courts have found various EPA rules to be contrary to law or otherwise unreasonable, with the rule sometimes being vacated and sometimes not being vacated. In turn, those court actions have had different effects on sources' compliance obligations.

c. Within the revised Supplemental Cost Finding for the Mercury and Air Toxics Standards 2018 proposal, EPA cites that, "[A]gencies have inherent authority to reconsider past decisions and to revise, replace, or repeal a decision to the extent permitted by law and supported by a reasoned explanation." 7 When you stated to Senator Cardin that you, "don't think you can roll back a regulation that has been fully implemented," did that mean you didn't think the agency could do so legally and if so, how does that sync with the argument made in the proposal that the agency has inherent authority to reconsider past decisions?

EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor proposing to rescind the emission standards to which those units are currently subject. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants, EPA is proposing to conclude that the reversal of the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list. As stated in the NPRM, "Consistent with [the D.C. Circuit opinion] *New Jersey*, the EPA is proposing to find that this reversal of the CAA section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list. Because EGUs would remain on the CAA section 112(c)(1) source category list, the CAA section 112(d) standards for that category, as promulgated in the MATS rule, would be unaffected by final action on this proposal."

d. If the courts end up vacating the MATS rule because of EPA's decision to finalize its proposal finding that it is no longer "appropriate and necessary" to regulate under Section 112, would you still stand by your comments to Senator Cardin that you "honestly do not believe that that equipment will be turned off or removed?" If so, legally speaking, what would require utilities to run control technologies currently being used to meet MATS if the MATS rule were to be vacated or rescinded?

I stand by my testimony. EPA's proposal would not rescind or weaken the MATS standards. Otherwise, EPA has not established a position on the speculative issue your question raises.

[7] EPA Revised Supplemental Finding Proposal, 2018.

e. Please list all the section 126 petitions your agency has during this Administration in which petitioners have expressed concerns that a utility upstream is turning off or not optimizing installed air control technologies and as a result is creating ozone transport concerns for downwind states. Please identify which of these petitions were rejected since you became Acting Administrator.

Section 126 of the Clean Air Act gives a state the authority to ask EPA to set emissions limits for sources of air pollution in other states whose emissions contribute significantly to nonattainment or interfere with maintenance of one or more National Ambient Air Quality Standard (NAAQS) in the petitioning state. Information on Clean Air Act Section 126 petitions related to ozone NAAQS are available at: https://www.epa.gov/ground-level-ozone-pollution/ozone-national-ambient-air-quality-standards-naaqs-section-126. Below are links to Section 126 petitions related to the 2008 or 2015 ozone NAAQS submitted since 2016 and their current status:

- **New York Petition - May 2018: https://www.epa.gov/ground-level-ozone-pollution/new-york-section-126-petition-may-2018.**
- **Delaware Petition - November 28, 2016: https://www.epa.gov/ground-level-ozone-pollution/delaware-section-126-petition-november-28-2016.**
- **Delaware and Maryland Petitions - November 2016: https://www.epa.gov/ground-level-ozone-pollution/delaware-and-maryland-126-petitions-november-2016.**
- **Delaware Petition - August 8, 2016: https://www.epa.gov/ground-level-ozone-pollution/delaware-126-petition-august-8-2016.**
- **Delaware Petition - July 7, 2016**
- **Connecticut Petition - July 2016**

In most cases, we have denied such petitions because: (1) they were inadequately justified by the applicant; and/or (2) other programs have adequately addressed upwind emission sources.

f. Are you aware of any situation since you have served at EPA under this Administration, when a utility has turned off or not fully optimized their installed controls? If so, please list and explain all situations.

I am not aware of any situation in that time frame in which a utility has violated its obligations under the Clean Air Act and regulations and permits issued thereunder by turning off or not fully optimizing their installed controls.

17. OMB has also long recognized the limitations of a formal cost-benefit analysis, especially when benefits cannot be fully monetized. OMB's 2003 Circular A-4 requires EPA and other agencies to conduct a complete regulatory analysis that "includes a discussion of non-quantified as well as quantified benefits and costs. When there are important nonmonetary values at stake, you should also identify them in your analysis so policymakers can compare them with the monetary benefits and costs."[8] In addition, OMB clarifies in Circular A-4 that all ancillary benefits should be counted in any rule analysis, directing agencies to "look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks. An ancillary benefit is a favorable impact of the rule that is typically unrelated or secondary to the statutory purpose of the rulemaking." OMB also states when an agency, "can estimate the monetary value of some but not all of the ancillary benefits of a regulation, but cannot assign a monetary value to the primary measure of effectiveness, you should subtract the monetary estimate of the ancillary benefits from the gross cost estimate to yield an estimated net cost."[9] Why does EPA believe it not necessary to review all the benefits – including ancillary co-benefits – in EPA's analysis (which is based only in part on the regulatory impact analysis prepared for OMB and responsive to its guidance), that is being used to make its "appropriate and necessary" determination under Section 112(n)(1)(A)? Why are those benefits required to be counted in any other benefit assessment analysis for any other regulatory action, but not proposed to be included here?

The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions may be found in those documents. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

For example, the accompanying memorandum presents a summary of costs and the target pollutant benefits that EPA views as pertinent to the appropriate and necessary finding under section 112(n)(1)(A). Target pollutant benefits consist of the quantified and unquantified benefits from reductions in hazardous air pollutants. EPA also estimated that the MATS rule would result in ancillary benefits from the concomitant reduction of non-target pollutants. These include the quantified PM2.5 co-benefits and other unquantified co-benefits that occur as a result of reductions of non-HAP emissions. However, for reasons described in the preamble and based on the specific statutory direction in 112(n)(1)(A), EPA proposes that the HAP benefits, both quantified and unquantified, are the most relevant portion of the analysis for purposes of the appropriate and necessary finding. Therefore, in evaluating the pertinent impacts of this proposed action, EPA has focused on the target pollutant impacts. EPA has

[8] 68 FR 58366
[9] 68 FR 58366

proposed to conclude that the quantifiable portion of the target HAP benefits are not even moderately commensurate with the compliance cost of the rule, as the difference between costs and HAP benefits is substantial using either discount rate.

18. In determining it was no longer "appropriate and necessary" to regulate utilities under Section 112 in EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards –

    a. Did EPA use any data beyond what was included in the 2011 MATS Regulatory Impact Analysis? If so, please describe it. If not, why not?

    EPA's proposed action utilizes information from the 2011 Regulatory Impact Analysis (RIA) as well as an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

    The NPRM notes that the MATS RIA accounts for all the monetized *and* unquantified benefits of the rule, and the EPA's proposed approach to the cost-benefit analysis in the RIA does not discount the existence or importance of the unquantified benefits of reducing HAP emissions. After fully acknowledging the quantified benefits of reducing HAP emissions, the EPA proposes to conclude that substantial and important unquantified benefits of MATS are not sufficient to overcome the significant difference between the monetized benefits and costs of this rule. The EPA has provided an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The actual costs and benefits of the MATS rule may differ from the EPA's analysis. However, as explained in the accompanying memorandum, given that the CAA section 112(n)(1)(A) finding is a threshold analysis that Congress intended the Agency would complete prior to regulation, the EPA believes it is reasonable for purposes of this reconsideration to rely on the estimates projected prior to the rule's taking effect, *i.e.*, the estimates of costs and benefits calculated in the 2011 RIA. In addition, even assuming that actual costs and benefits differed from projections made in 2011, given the large difference between target HAP

benefits and estimated costs, the outcome of the Agency's proposed finding here would likely stay the same.

b. Did EPA consider updating the costs estimate to reflect the actual installation and operating costs required to meet MATS or consider accounting for costs already incurred by the utility industry? If so, why was this information not included in the proposal? If not, why not?

As noted above, EPA's proposed action utilizes information from the 2011 Regulatory Impact Analysis (RIA) as well as an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The actual costs and benefits of the MATS rule may differ from the EPA's analysis. However, as explained in the accompanying memorandum, given that the CAA section 112(n)(1)(A) finding is a threshold analysis that Congress intended the Agency would complete prior to regulation, the EPA believes it is reasonable for purposes of this reconsideration to rely on the estimates projected prior to the rule's taking effect, *i.e.*, the estimates of costs and benefits calculated in the 2011 RIA. In addition, even assuming that actual costs and benefits differed from projections made in 2011, given the large difference between target HAP benefits and estimated costs, the outcome of the Agency's proposed finding here would likely stay the same.

c. Did EPA consider updating the benefits data to include the best available science? If not, why not? If so, why was this information not included in the proposal?

As noted above, EPA's proposed action utilizes information from the 2011 Regulatory Impact Analysis (RIA) as well as an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The actual costs and benefits of the MATS rule may differ from the EPA's analysis. However, as explained in the accompanying memorandum, given that the CAA section 112(n)(1)(A) finding is a threshold analysis that Congress intended the Agency would complete prior to regulation, the EPA believes it is reasonable for purposes of this reconsideration to rely on the estimates projected prior to the rule's taking effect, *i.e.*, the estimates of costs and benefits calculated in the 2011 RIA. In addition, even assuming that actual costs and benefits differed from projections made in 2011, given the large difference between target HAP benefits and estimated costs, the outcome of the Agency's proposed finding here would likely stay the same.

19. Under the George W. Bush Administration, EPA stated that "benefits calculations relying solely on IQ decrements are likely to underestimate the benefits to cognitive functioning of reduced mercury exposures."[10] Do you agree with this statement? If so, why? If not, why not?

    As explained in detail in the signed NPRM, it is well known that certain benefits of HAP reductions are not quantifiable. We nevertheless give appropriate consideration to unquantifiable benefits in the NPRM.

20. In a recent residual risk proposal, EPA has stated "any reduction in HAP emissions would be expected to provide health benefits in the form of improved air quality and less exposure to potentially harmful chemicals."[11] Does this statement apply to reductions in HAPs for all Section 112 listed source categories, including EGUs? If not, why not? If so, why? Please list all the acid gases, heavy metals, and other hazardous air pollutants (by name) that are emitted by electric generating units that contribute to particulate matter pollution. If reducing these HAPs also reduces particulate matter, wouldn't reducing particulate matter be a direct benefit of the regulation, not a co-benefit?

    Information responsive to your questions may be found in the notice of proposed rulemaking and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. The MATS rule requirements to limit emissions of mercury and other HAP are discussed on pages 41 – 51 of the .pdf version of the NPRM currently available at the link.

[10] EPA, Regulatory Impact Analysis of the Clean Air Mercury Rule, (March 2005) https://www3.epa.gov/airtoxics/utility/ria_final.pdf.

[11] 83 FR 46262

21. In 2003, then-EPA Assistant Administrator for Air and Radiation Jeff Holmstead testified before the House Energy and Commerce Committee on the difficulty of quantifying the benefits of reducing air toxic emissions from power plants, saying: "These estimates [for Clear Skies] do not include the many additional benefits that cannot currently be monetized but are likely to be significant, such as human health benefits from reduced risk of mercury emissions, and ecological benefits from improvements in the health of our forests, lakes, and coastal waters."[12] Is this also true for MATS?

    As explained in detail in the signed NPRM, it is well known that certain benefits of HAP reductions are not quantifiable. We nevertheless give appropriate consideration to unquantifiable benefits in the NPRM.

22. EPA has tried to bridge the air toxic data gaps to better monetize benefits through various stakeholder workshops over the years. The latest workshop in 2009 concluded that monetizing all air toxic benefits is still not possible, making a cost benefit analysis "difficult" to do for any action involving hazardous air pollutants. Finding that, "[F]or many chemicals on the [Clean Air Act hazardous air pollutant] list, the information on potential health effects is so limited that quantitative benefits analysis is not feasible…This lack of information is in contrast to the criteria air pollutants for which there is extensive human exposure or epidemiological data on the health effects at ambient-exposure levels…characterizing the health effects of air toxics at ambient levels can be subject to a very high level of uncertainty; thus, using these health effects in economic benefits assessment is difficult."[13] Do you agree that monetizing all air toxic benefits is still not possible and "using these health effects in economic benefits assessment is difficult" if not impossible? If not, why not? If so, why?

    EPA continues to work to quantify and monetize key costs and benefits for its regulations. Information on economic and cost analysis for air pollution regulations, including monetization of costs and benefits, is available at: https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations. Additional information responsive to your questions may be found in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits is available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

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[12] Statement of EPA Assistant Administrator Jeff Holmstead, Hearing Before the U.S. House of Representatives Energy and Air Quality Subcommittee of the House Energy and Commerce Committee entitled "The Clear Skies Initiative: A Multipollutant Approach to the Clean Air Act," (July 8, 2003), https://archive.epa.gov/ocir/hearings/testimony/108_2003_2004/web/pdf/2003_0708_jh.pdf.

[13] Gwinn et al, "Meeting Report: Estimating the Benefits of Reducing Hazardous Air Pollutants—Summary of 2009 Workshop and Future Considerations," Environ Health Perspectives. 2011 Jan; 119(1): 125–130, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018491/.

23. Do you agree with the American Academy of Pediatrics, which has stated there is no safe level of mercury exposure for children in the womb? If not, why not?

It should be recognized, as a fundamental threshold matter, that under Clean Air Act section 112, EPA's general obligation when analyzing existing MACT standards with regard to the regulation of hazardous air pollutant emissions, including mercury emissions from EGUs, is, under the residual risk provision in 112(f)(2), to provide an ample margin of safety to protect public health. The D.C. Circuit Court of Appeals has held that EPA is not obligated to establish "zero-risk" standards under section 112, *NRDC v. EPA*, 824 F.2d 1146, 1152 (D.C. Cir. 1987). EPA's proposal explains why EPA believes that the existing MATS standards do provide an ample margin of safety to protect public health, *see especially* page 103 of the .pdf version available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

For information on the health effects of mercury exposures, please see EPA's website: https://www.epa.gov/mercury/health-effects-exposures-mercury.

Further information responsive to your question as to EPA's assessment of the pediatric health impacts of mercury exposure may be found in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits is available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Additional information on economic and cost analysis for air pollution regulations, including monetization of costs and benefits, is available at: https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations.

24. According to EPA's 2018 Supplemental Cost Finding proposal, EGUs emitted 29 tons of mercury annually prior to the implementation of the rule. What populations were most susceptible to mercury exposure and is mercury easily removed from the environment once it gets into the environment?

How someone's health may be affected by an exposure to mercury depends on a number of factors: the form of mercury (for example, methylmercury or elemental (metallic) mercury); the amount of mercury in the exposure; the age of the person exposed (the fetus is the most vulnerable); how long the exposure lasts; how the person is exposed – breathing, eating, skin contact, etc.; and the health of the person exposed. For more information on the health effects of mercury exposures, please see EPA's website: https://www.epa.gov/mercury/health-effects-exposures-mercury. More current information on mercury emissions can also be found in EPA's National Emissions Inventory at: https://www.epa.gov/air-emissions-inventories.

25. Are there states in which utilities may no longer seek rate recovery from public utility commissions for the capital costs and/or operating costs of air pollution control equipment for which there is not a legal requirement to operate that equipment? If so, please identify the states.

    Because EPA is not the national energy regulator, it does not compile such information. I suggest seeking information from the Department of Energy, the Federal Energy Regulatory Commission, or state public utility commissions themselves. However, if this question is directed at our MATS proposal, we do not believe it will remove the legal requirement for the equipment.

26. Are there states in which public utility commission rules or practices allow ratepayers or any third parties to mount challenges to power plant company rate recovery from public utility commissions for the capital costs and/or operating costs of air pollution control equipment for which there is not a legal requirement to operate that equipment? If so, please identify the states.

    Because EPA is not the national energy regulator, it does not compile such information. I suggest seeking information from the Department of Energy, the Federal Energy Regulatory Commission, or state public utility commissions themselves. However, if this question is directed at our MATS proposal, we do not believe it will remove the legal requirement for the equipment.

27. Can you identify all third parties who urged the agency, or OMB, not to propose to rescind the "appropriate and necessary" finding or the MATS rule? In particular, please identify the positions urged by the Edison Electric Institute; Utility Air Regulatory Group; the American Public Power Association; the National Rural Electric Cooperative Association; the Clean Energy Group; any electric utility company; any state or local air pollution control agency or their associations; any public health or environmental non-governmental organization. Which groups supported the proposed changes?

    EPA expects that interested third parties will submit comments setting forth their position on this issue. All comments submitted to Docket No. EPA-HQ-OAR-2018-0794 will be available for public inspection and will be carefully considered by EPA in taking final action. Materials provided to OMB in the context of Executive Order 12866 meetings can be found at: https://www.reginfo.gov/public/do/eom12866SearchResults. I do not recall any of the aforementioned groups reaching out to me prior to this proposal.

Questions on the Kigali Treaty

28. I have learned that counter to your implication in our private meeting, there have in fact been interagency meetings in which Bill Wehrum and other EPA officials participated to discuss the Kigali Amendment to the Montreal Protocol. Moreover, I have also been informed that EPA officials have stated at these meetings that EPA does not wish the treaty to be submitted for ratification.

    a. Please list the dates of and attendees at each such meeting.
    b. Do you share Mr. Wehrum's opinion that the Treaty should not be submitted to the United States Senate for ratification, or authorize him to convey this view at the meetings that have occurred?

    Principal meetings on this issue occurred prior to my becoming Acting Administrator. I have not been briefed on this issue by my career staff and I am reserving judgement until that time.

    The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to seek ratification, the President would send the Amendment to the Senate for advice and consent.

29. U.S. businesses across the entire HFC supply chain are transitioning away from HFCs and taking advantage of new global markets. The US industries that use or produce fluorocarbons directly employ more than 593,000 Americans with an annual payroll in excess of $34 billion, and sales of $206 billion. The overall contribution of the fluorocarbon industries network to US economic activity is more than 2.5 million jobs and goods and services valued at more than $630 billion annually. As I mentioned at the hearing - American industry, both users and producers of HFCs, strongly support the ratification of the Kigali Amendment to the Montreal Protocol because it encourages domestic manufacturing of next generation alternatives and technologies and provides businesses a predictable transition away from HFCs. Various studies clearly show that ratification of Kigali will benefit American manufacturing jobs with little to no impact to consumers and an obvious benefit to the environment.

    a. Do you support the ratification of the Kigali Amendment to the Montreal Protocol? If not, why not?

    The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to seek ratification, the President would send the Amendment to the Senate for advice and consent.

b. What will you commit to do to help facilitate the transition away from HFCs toward innovative next-generation technologies?

EPA's responsibility in this area is bound by its authority to regulate under Title VI of the Clean Air Act. In those situations where it is appropriate, matters related to the transition away from HFCs will be taken into account in the development of implementing regulations.

c. EPA conducted a cost-benefit analysis of the Montreal Protocol and the HFC phasedown that I believe shows that the ratification of Kigali will be a benefit to American businesses and American consumers. This study has not been released to the public yet. Will you immediately make the results of that study public? If not, why not and when will it be public?

Any analysis of costs and benefits by EPA is still undergoing review and includes information that relates to a pending or contemplated executive action and is therefore deliberative and pre-decisional.

d. What challenges does EPA face in achieving these benefits and what will EPA, under your leadership, do to successfully overcome these challenges?

As I noted previously, the White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to seek ratification, the President would send the Amendment to the Senate for advice and consent. Until such time as those actions may take place, it would be premature for me to speculate about the challenges the EPA may face and how those challenges may be addressed and resolved.

More information on EPA's efforts on ozone layer protection is available at: https://www.epa.gov/ozone-layer-protection.

30. It is my understanding that EPA has prepared analysis of the consumer cost benefits of the Montreal Protocol, including projected benefits to US consumers from the implementation of the HFC phasedown consistent with the Kigali amendment to the Protocol.

a. Will you immediately make the results of that study public? If not, why not and when will the agency release this report?

The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. Any analysis of costs and benefits by EPA is still undergoing review and includes information that relates to a pending or contemplated executive action and is therefore deliberative and pre-decisional.

b. Please share with the Committee this analysis and the key findings from EPA's work.

Any analysis of costs and benefits by EPA is still undergoing review and includes information that relates to a pending or contemplated executive action and is therefore deliberative and pre-decisional. Should the analysis be finalized in connection with any future final action we will provide any decisional documents in the administrative record for those actions and can supply the final version at that time.

Questions on the Methylene Chloride Ban

31. When I raised my concerns at the hearing about EPA's failure to finalize a methylene chloride ban that sufficiently protects both consumer and commercial users against its severe risks (as your chief of staff committed to my staff would occur at the time former Administrator Pruitt first announced his plans to finalize the ban), you stated that "It is at OMB, it is ready to go as soon as the Federal Register opens. That is something that I have taken seriously, and it is something that we have spent a lot of time, I have spent a lot of personal time on that issue. And I hope we can get that out as quickly as possible."

    a. Has EPA determined that methylene chloride poses an unreasonable risk to workers?
    b. Do you agree that the majority of reported deaths due to methylene chloride exposure have occurred in a work setting, even when workers have undergone hours of training and followed all recommended precautionary measures?
    c. Do you agree that the OSHA standard for methylene chloride exposure is more than 20 years old14, and that OSHA told EPA that it does not believe the OSHA standard is protective enough given the risks to workers that were identified by EPA?
    d. Do you agree that as part of its analysis, EPA assessed whether a training program for the proper use of respirators for methylene chloride paint strippers could be effective, and concluded it would be too costly and would likely result in companies voluntarily using alternatives to methylene chloride?
    e. How long does EPA expect it will take to finalize its proposal entitled "Methylene Chloride; Commercial Paint and Coating Removal Training, Certification and Limited Access Program" once it publishes this insufficiently protective approach to addressing occupational methylene chloride exposures?
    f. How long does EPA expect it will take to finalize its consumer ban on methylene chloride?

Yes, under certain circumstances, methylene chloride not only can pose danger, but has also caused worker deaths. EPA submitted a final rule for methylene chloride paint and coating removal to OMB for interagency review on December 21, 2018, prior to the lapse in appropriations. Questions regarding the scope, implementation, and timing of

[14] https://www.regulations.gov/document?D=EPA-HQ-OPPT-2016-0231-0153

the final rule, and associated EPA actions, will depend on the outcome of the interagency review process.

Questions on PFAS

32. The Agency for Toxic Substances and Disease Registry (ATSDR) announced its draft toxicological profile for PFAS on June 21, 2018, covering a total of 14 perfluoroalkyl substances. Due to inadequate data for 10 of the compounds, ATSDR could establish Minimum Risk Levels (MRLs) for only 4 of the PFAS chemicals. These MRLs are not the same as the current EPA Lifetime Health Advisories (LHAs) for PFOA and PFOS, but the new profiles indicate potential health impacts at lower concentrations that EPA's LHAs, which are set at 70 parts per trillion (ppt). Several states have established drinking water standards substantially lower than EPA's 70 ppt LHAs for PFOS and PFOA—some in the range of the equivalent levels reflected by the ATSDR profile, or about 7 ppt for PFOS and 11 ppt for PFOA. Is EPA evaluating these state actions and the ATSDR findings and incorporating the latest science in its regulatory process?

    The EPA supports and has been engaged in the efforts of our state and federal partners, including ATSDR, to develop information related to PFAS. The EPA continues to take concrete steps, in cooperation with our federal and state partners, to address PFAS and ensure all Americans have access to clean and safe drinking water.

    The EPA is evaluating PFOA and PFOS under the regulatory determination process, which builds on the work the agency completed in the health advisories for PFOA and PFOS and is an important step in the process for establishing a National Primary Drinking Water Regulation.

    As a part of the evaluation, the EPA will continue to carefully review the draft ATSDR Toxicological Profile and will consider all newly available scientific information, including the science used to develop state standards.

33. When EPA conducted its Unregulated Contaminant Monitoring Rule (UCMR) 3 monitoring, it identified 63 drinking water systems[15] with combined PFOA and PFOS levels that exceeded EPA's health advisory levels. However, according to former EPA officials, EPA also received data related to PFAS detected at levels below EPA's health advisory level. For each category below, please provide a list of drinking water systems (including their location) whose UCMR 3 occurrence data fell into the specified range.

    a. Systems whose levels exceeded the combined PFOA and PFOS health advisory levels.
    b. Systems whose combined PFOA and PFOS levels were between 60-70 ppt.
    c. Systems whose combined PFOA and PFOS levels were between 50-60 ppt.
    d. Systems whose combined PFOA and PFOS levels were between 40-50 ppt.

[15] https://pfas-1.itrcweb.org/wp-content/uploads/2018/01/pfas_fact_sheet_regulations_1_4_18.pdf

e. Systems whose combined PFOA and PFOS levels were between 30-40 ppt.
f. Systems whose combined PFOA and PFOS levels were between 20-30 ppt.

To provide Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water, the EPA has established the health advisory levels at 70 parts per trillion. EPA fact sheets state that when both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 parts per trillion health advisory level. This health advisory level offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

The EPA worked with states and public water systems (PWSs) to characterize the occurrence of six PFAS in the nation's drinking water served by PWSs by including six PFAS in the third Unregulated Contaminant Monitoring Rule (UCMR3) under the Safe Drinking Water Act (SDWA). From 2013-2015, at least one sample of drinking water was collected and analyzed for six PFAS in nearly 5,000 PWSs across the nation, accounting for approximately 80 percent of the U.S. population served by PWSs (approximately 250 million people).

Under the UCMR3, the EPA found that 1.3 percent of the participating PWSs (63 out of 4,920 PWSs reporting) had at least one sample that measured PFOA, PFOS, or a combined value for PFOA and PFOS at concentrations greater than 70 ppt. The EPA found 4.0 percent of PWSs (198 out of 4,920 systems) reported results for which one or more of the six PFAS (PFOA, PFOS, perfluorononanoic acid (PFNA), perfluorohexane sulfonic acid (PFHxS), (perfluoroheptanoic acid) PFHpA, or perfluorobutane sulfonate (PFBS)) was measured at or above the minimum reporting limit (MRL) during one or more sampling events at one or more sampling locations.

The final UCMR3 data set is publicly available on the UCMR occurrence data web page (https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule) as are the instructions for importing the UCMR3 results (https://www.epa.gov/sites/production/files/2016-08/documents/instructions-importing-viewing-ucmr3-results.pdf) to filter, analyze, or view the analytical data under various scenarios, including the specified ranges in the question. However, please note the UCMR3 MRL for PFOA was 20 ppt and for PFOS was 40 ppt. The EPA has no numeric results below the MRLs.

Questions on Past Commitments

34. In Chad McIntosh's September 2, 2018 letter to me, he made several commitments. For each of the following commitments drawn from that letter, please indicate whether the commitment has been met. If it has not been met, why not, and by what date will it be met?

a. "If confirmed, I will commit to working directly with the National Tribal Caucus (NTC), a national body of tribal advisors who focus primarily on identifying and addressing national, cross-media and emerging tribal environmental issues. I will commit to meeting with the NTC on at least an annual basis. In practice, discussions will likely occur on a monthly basis. I will commit to meeting with the entire National Tribal Operations Committee on an annual basis."
b. "In addition, I commit to meeting with each of the Regional Tribal Operations Committee (RTOC) at least on an annual basis with my EPA regional counterparts, and commit to participating in key tribal meetings such as the National Congress of American Indians Annual Convention"
c. "Should I be confirmed, I will enhance the strength of Tribal representation within EPA by hiring a member of a federally recognized tribe to be the Director of the American Indian Environmental Office within the Office of International and Tribal Affairs."

Assistant Administrator McIntosh's nomination was confirmed by the United States Senate on January 3, 2019. He officially began as Assistant Administrator on January 18, 2019.

Prior to his confirmation by the US Senate, in his capacity as Senior Counsel to the Administrator, Chad McIntosh attended meetings with various tribal leaders in order to better understand EPA's federal responsibilities and the interests and concerns of the tribes. Last fall, Mr. McIntosh participated in meetings with the Governor of the Pueblo of Santa Clara and Tribal Council representatives of the Nez Perce Tribe, as well as tribal organizations and associations, including the Alaska Native Village Cooperation Association. He also attended the EPA Region 9 Regional Tribal Operations Committee (RTOC) meetings, with EPA Region 9 Regional Administrator, Mike Stoker, in late October.

In his capacity as the Assistant Administrator for International and Tribal Affairs here at EPA, Mr. McIntosh is the Agency-lead for the National Tribal Operations Committee (NTOC) meeting, consisting of National Tribal Caucus representatives and EPA Senior Leadership. The NTOC meeting is being scheduled in Washington, D.C. in February, depending on the current government shutdown. I plan to co-chair the NTOC meeting when it is scheduled; Chad McIntosh and other Assistant Administrators and Regional Administrators will also attend.

Every year, Mr. McIntosh will meet with the Regional Tribal Operations Committees in each of the 10 EPA regions. The Regional Administrators and Mr. McIntosh take these meetings very seriously as a way to carry out EPA's responsibilities with Tribes and to consult and communicate with the Tribes. In addition, he will attend key Tribal meetings and directly visit Tribes throughout the year.

The role of EPA's American Indian Environmental Office is very important. He is working with EPA's human resources office and with his colleagues here at the Agency

to identify and appoint a member of a federally recognized tribe to be Director of the American Indian Environmental Office as soon as possible.

Now that he is confirmed as his letter noted and which is key to fulfilling these commitments, I know that Mr. McIntosh will do everything in his power to meet his commitments throughout his appointment in an ongoing and transparent fashion.

35. In your January, 2019 letter to me, you made several commitments. For each of the following commitments drawn from that letter, please indicate whether the commitment has been met. If it has not been met, why not, and by what date will it be met?

    a. "EPA will withdraw its OMB submission to propose revisions to these [worker protection] rules and will not make any changes to the designated representative and minimum age provisions."

    The Agency has been developing proposals concerning the Agricultural Worker Protection Standard (WPS) rule, including changes to the designated representative and minimum age provisions, and application exclusion zone (AEZ) provisions. The Agency has also been developing changes to the Certification of Pesticide Applicators (CPA) rule. Although the subject matter associated with these potential changes has been subject to wide ranging public stakeholder meetings and public comments, EPA will withdraw its OMB submission to propose revisions to these rules and will not make any changes to the designated representative and minimum age provisions. It may consider proposing revisions to the AEZ provision in the WPS rule, but to no other substantive provision in the WPS rule. If such a proposal is issued, it would be subject to a public notice and comment period of no less than 90 days. I will follow through on the commitments in my January 2019 letter to you.

    b. The Agency will promptly submit the methodology for deciding how to collect and evaluate scientific research related to a chemical's safety that was recently developed by the Office of Chemical Safety and Pollution Prevention (OCSPP) to the National Academy of Sciences (NAS) for peer review and feedback.

    Because it is important that all of the Agency's chemical safety efforts comply with the requirements in the law as well as the regulations implementing the law regarding the Agency's use of the best available science, the EPA will, promptly submit the methodology for deciding how to collect and evaluate scientific research related to a chemical's safety that was recently developed by the Office of Chemical Safety and Pollution Prevention (OCSPP) to the National Academy of Sciences (NAS) for peer review and feedback and, at the same time EPA will use the Frank R. Lautenberg Chemical Safety for the 21st Century Act Section 26(o) mandated advisory committee, a FACA committee, whose purpose is to provide independent

advice and expert consultation with respect to the scientific and technical aspects of issues related to TSCA, to provide its independent advice on the methods used by OCSPP to collect and evaluate scientific research in the first ten risk evaluations. I also commit to make public the review, feedback and any recommendations received from both the NAS and the advisory committee within 30 days of their receipt. Finally, EPA will incorporate feedback and recommendations as appropriate. I will follow through on the commitments in my January 2019 letter to you.

Questions on the Shutdown

36. Please describe how the on-going government shutdown is affecting EPA's efforts to –

    a. Provide guidance to state drinking water programs; and
    b. Coordinate with states to keep toxic chemicals out of drinking water and respond to contamination events.

EPA used carryover funding to keep the Agency open through December 28—one week beyond the lapse in appropriations, which occurred on December 21—and of course the lapse has now ended. During the shutdown, EPA had staff available to work on excepted activities such as providing emergency guidance to states and water systems when significant risk to human health occurs, conducting emergency response activities for contaminated drinking water, and providing assistance as necessary for other situations posing a danger to the public. For example, the State of New Jersey recently requested EPA staff to conduct critical work related to lead exposure in Newark. However, the EPA was not able to provide routine, non-emergency guidance or technical support to state drinking water programs during the government shutdown. Further information on EPA's shutdown procedures and activities that occurred during the lapse in funding can be found in the *U.S. EPA Contingency Plan in the Event of a Government Shutdown* (https://www.epa.gov/2018lapse/us-epa-contingency-plan-event-government-shutdown).

37. Please provide an update on when you expect the following EPA regulatory actions to be completed assuming the government shut-down ends by a) February 15 2019 or b) April 1, 2019.

    - National Primary Drinking Water Regulations for Lead and Copper (revisions to the so-called Lead and Copper Rule) – proposed rule expected in February 2019 according to the Fall 2018 Unified Agenda.
    - National Primary Drinking Water Regulations: Regulation of Perchlorate (pursuant to a consent decree entered by the U.S. District Court for the Southern District of New York, EPA was supposed to propose a Maximum Contaminant Level Goal (MCLG) for perchlorate in drinking water no later than October 31, 2018 and finalize the MCLG no later than December 19, 2019).

- Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water (EPA proposed regulations to implement section 1417 of the Safe Drinking Water Act on January 17, 2017 with a stated goal in the Unified Agenda of finalizing that rule by June 2019).

The EPA is working aggressively to develop proposed major revisions to the Lead and Copper Rule, which was last significantly updated in 1991. It is a complicated rulemaking, but EPA anticipates sending proposed revisions to OMB this spring. The same rulemaking team is working on the Lead Free Rule which the EPA plans to finalize in 2019. The EPA intends to maintain these rulemaking schedules; however, the agency will continue to evaluate the schedules in light of the government shutdown and make necessary adjustments. The consent decree deadline for the perchlorate rulemaking was extended to April 30, 2019, to reflect the additional time required to address extensive peer reviewer recommendations to improve the scientific tools the agency is using to inform the proposed rule which was not anticipated at the time the decree was entered. The consent decree includes a provision that automatically extends deadlines in the event of certain circumstances outside the reasonable control of the EPA, such as lapses in government funding.

38. EPW staff contacted your office via email on January 9, 2019 requesting the names of the 6 EPA staff deemed "*necessary to perform activities expressly authorized by law*" and the 12 EPA staff deemed "*necessary to the discharge of the President's constitutional duties and powers*" in EPA's December 31, 2018 shutdown contingency plan.
On January 10, 2019 a member of your staff replied via email, writing "*It has been difficult with limited resources to pinpoint. Still working on this.*" To date, no additional response failed to that email request has been received.

Also on January 10, 2019, members of the EPW committee sent you a letter requesting information about any EPA staff that had been or was currently engaged in work related to your nomination. To date, no response to that letter has been received.
On the evening of January 14, 2019, reports surfaced that you had updated EPA's contingency plan to increase the number of EPA staff deemed "*necessary to the discharge of the President's constitutional duties and powers*" from 12 to 28, and increased the number of EPA staff deemed "*necessary to perform activities necessarily implied by law*" from zero (0) to 12.

During your confirmation hearing you also admitted in an exchange with Senator Van Hollen that certain EPA staff were brought back to work from furlough during the government shutdown to prepare you for this hearing;

> *Senator Van Hollen. And that there are approximately 891 who are on the job, is that approximately right?*
>
> *Mr. Wheeler. That sounds pretty exact, 891. It varies from day to day. We bring back people to work on specific issues.*

Senator Van Hollen. Right. Including some that you brought on to prepare for this hearing, is that right?

Mr. Wheeler. Yes, Senator.

a. Please list the names and official titles of the 6 EPA staff deemed "necessary to perform activities expressly authorized by law" in EPA's December 31, 2018 shutdown contingency plan.
b. Please list the names and official titles of the 12 EPA staff deemed "necessary to the discharge of the President's constitutional duties and powers" in EPA's December 31, 2018 shutdown contingency plan.
c. Please list the names and official titles of 28 EPA staff deemed "necessary to the discharge of the President's constitutional duties and powers" in EPA's January 14, 2019 contingency shutdown plan.
d. Please list the names and official titles of the 12 EPA staff deemed "necessary to perform activities necessarily implied by law" in EPA's January 14, 2019 contingency shutdown plan.
e. For each EPA staff member described in questions (a) through (d), please provide their work schedules and an accounting of each hour worked by each of those staff, as applicable, on any work activity related to your nomination or the confirmation process, and a description of the task or work function performed during that time.
f. Please submit all letters, emails, memoranda, or other written or electronic correspondence prepared, transmitted, or received by each EPA staff member described in questions (a) through (d) that relates to your nomination or confirmation process.
g. At any time since December 29, 2018, has any EPA staff member not encapsulated by questions (a) through (d) engaged in work activities related to your nomination or the confirmation process?
h. If your answer question (g) is yes, please list the names and official titles of those individuals.
i. If your answer to question (g) is yes, please submit all letters, emails, memoranda, or other written or electronic correspondence prepared, transmitted, or received by those EPA staff member(s) that relates to your nomination or the confirmation process.
j. If your answer to question (g) is yes, please submit work schedules and an accounting for hours worked by each of those EPA staff, as applicable, on any work activity related to your nomination or the confirmation process, including a description of the task or work function performed during that time.
k. Please list the names and official titles of the 12 EPA staff deemed "necessary to perform activities implied by law" that were added to EPA's contingency plan for the first time on January 14, 2019? What change in law or circumstance occurred between December 31, 2018 and January 14, 2019 lead you to add those 12 EPA staff after you originally estimated that no EPA staff would be necessary to perform activities implied by law?

l. What work activities are the 12 EPA staff deemed "necessary to perform activities implied by law" by the January 14, 2019 EPA shutdown contingency plan engaged in? Are any of those 12 EPA staff engaged in work activities or functions related to your nomination or the confirmation process?
m. Were any of the additional EPA staff added to the December 29, 2018 EPA shutdown contingency plan by the January 14, 2019 EPA shutdown contingency plan engaged in work activities or functions related to your nomination or confirmation process prior to January 14, 2019?
n. If your answer to question (m) is yes, please list the names and official titles of any such EPA staff member or members.

OMB Circular A-11, Section 124.2 defines 5 categories of employees that must be accounted for in the Contingency Plan:

- **Their compensation is financed by a resource other than annual appropriation;**
- **They are necessary to perform activities expressly authorized by law;**
- **They are necessary to perform activities necessarily implied by law;**
- **They are necessary to the discharge of the President's constitutional duties and powers;**
- **They are necessary to protect life and property.**

Attached, please find a list of excepted employees. All excepted employees were instructed to only work the number of hours that were needed to complete their excepted duties. The number of excepted employees also fluctuated depending on the needs of the organization. While the majority of EPA's excepted employees were excepted as necessary to protect life and property, we had personnel numbers under 3 other categories:

- **The Agency's Presidentially appointed/senate confirmed individuals are necessary to perform activities expressly authorized by law.**
- **In the January 14th Contingency Plan, 12 individuals were deemed necessary to perform activities necessarily implied by law. These employees, from the Office of the Chief Financial Officer, were added to process payments for services rendered for excepted activities where there is an imminent threat to the safety of human life and property and funds are available.**
- **Individuals working on the Acting Administrator's hearing preparation were identified as necessary to the discharge of the President's Constitutional duties and powers. This number increased between the December 31st and January 14th Contingency Plans according to the work needed to directly support the Hearing preparation activities.**

39. Have any EPA contractors, sub-contractors, or independent contractors performed work activities or functions related to your nomination or the confirmation process since December 29, 2018? If so, please list the names and official titles of those individuals.

    No.

40. How many total hours have been spent by you and EPA staff discussing, researching or otherwise preparing for your nomination and the confirmation process, including your confirmation hearing testimony and responding to questions for the record?

    It is difficult to estimate hours by me or EPA staff discussing, researching, or otherwise preparing for the nomination hearing. However, I can advise you that I met with each program office once or twice to discuss a variety topics and programs they suggested to highlight and specific questions I had within the work of each program office. I followed those individual meetings with a meeting with all offices to ensure that I had a comprehensive review of our activities and programs to be able to fully answer Congressional questions. I do not believe we are able to assign a specific number of hours to the process for all individuals involved. However, I do hope this description of our general preparation will be helpful to you.

41. In 2017 EPA conducted roughly 12,000 inspections to make sure that air, water and toxic waste rules were being complied with. That's more than 230 each week. How many inspections has EPA conducted in the approximately three weeks since December 29, 2018?

    EPA did not conduct any routine, planned civil enforcement inspections since December 29, 2018, until the agency reopened after January 25, 2019. Criminal investigations continued, including laboratory support for those investigations. Emergency response personnel continued to respond as appropriate to accidental releases. Superfund personnel continued to do work, including soil, air and water sampling, at sites that may present an imminent threat to the safety of human life or to the protection of property. In addition, this question assumes that inspections are conducted evenly throughout the year. In actuality, the majority of inspections occur during the summer and warmer months.

    a. Has the ability of EPA's pollution inspectors to monitor air emissions been impacted or diminished in any way by the federal government shutdown, yes or no?

       Entities regulated under the Clean Air Act remain subject to requirements to monitor, record, and report air emissions in accordance with federal and state regulations and permits.

b. Has EPA's ability to monitor and test for water contamination been impacted or diminished in any way by the federal government shutdown, yes or no? If yes, please describe the impact of halted inspections during the shutdown on human health and the environment.

Entities regulated under the Clean Water Act remain subject to requirements to test and monitor for water contamination in accordance with their permits. NPDES permit holders should be continuing to submit discharge monitoring reports to either state systems or EPA's data system (ICIS).

Reviewing those monitoring results was not considered an excepted activity under EPA's lapse plan, so staff did not review monitoring and test results during that time.

Now that the government has reopened, EPA plans to update ICIS with submissions that were made during the shutdown.

42. I recently learned that samples of GenX, an unregulated, PFOA-like contaminant used to make nonstick cookware and other products, are sitting in refrigerators near the Lower Cape Fear River in Fayetteville, North Carolina because EPA's lab in Athens, GA has been shut down.

a. Please confirm whether this is true.

It is our understanding, during the shutdown, that North Carolina Department of Environmental Quality (NCDEQ) held approximately seven samples/week in NCDEQ's Regional Office in Fayetteville. We also understand the NCDEQ is explored options for alternative analysis of the samples. Region 4 intends to promptly determine the number of remaining samples needing analysis and provide support to NCDEQ now that the Agency has returned to work.

b. If so, please provide a list of similar situations where EPA's ability to monitor and test for water contamination has been affected by the government shutdown.

As noted in response to question 41, where PFAS are subject to permit limitations, monitoring data should continue to be collected and reported by the permit holder. In addition, all Chemours facilities in North Carolina, West Virginia and New Jersey are subject to a TSCA section 5(e) order that requires monitoring of PFAS releases. Information on any activities undertaken in support of PFAS related enforcement investigations is confidential. However, except in cases involving imminent threats to the safety of human life or to the protection of property EPA enforcement investigations were suspended during the shutdown.

EPA/ORD is also providing technical support to several other states in addition to North Carolina relating to possible PFAS water contamination. These states include New Hampshire, New Jersey, West Virginia, New York, Michigan, and Minnesota. The government shutdown impacted EPA's ability to provide the requested technical support to these states as well, including delays in analyses and reporting of PFAS in environmental media and in the development of additional study plans for future analyses of PFAS.

43. I recently learned that EPA has had to stop sampling air emissions in Louisiana for chloroprene.

    a. Please confirm whether this is true.
    b. If so, please provide a list of similar situations where the ability of pollution inspectors to monitor air emissions been impacted or diminished due to the government shutdown.

The Denka community air monitoring for chloroprene at six locations in LaPlace, Louisiana is continuing as part of EPA's activities to protect public health. News outlets incorrectly reported that EPA air monitoring had ceased during the shutdown and EPA reached out to the reporter with correct information on January 2 and 3, 2019, respectively. EPA also notified the state of Louisiana, citizen's science advocate Wilma Subra, and Louisiana Environmental Action Network (LEAN) President Marylee Orr of the reporting error. EPA posted the latest set of quality assured data from November on its website (https://www.epa.gov/la/laplace-st-john-baptist-parish-louisiana) on December 26, 2018.

Denka is the only facility with chloroprene emissions so there are no other similar situations.

44. I have heard that EPA was forced to cancel a public hearing on cleanup proposals for the former West Calumet Housing Complex in East Chicago, Indiana.

    a. Please confirm whether this is true.

EPA proposed an Amendment to Record of Decision for the residential area (Zone 1) for the USS Lead facility in East Chicago, Indiana on November 7, 2018. EPA held a public hearing on November 29, 2018 in East Chicago, IN to provide opportunity for input on the proposed remedy for Zone 3 of the USS Lead Superfund site. Members of the East Chicago community requested a second opportunity to provide public comment prior to the January 14, 2019 public comment deadline. EPA granted this request and

scheduled a second public hearing for January 10, 2019. This hearing was postponed due to the partial federal government shutdown.

b. EPA's Office of Land and Emergency Management, which oversees cleanup of Toxic Superfund sites, is currently down from 468 staffers to 3. Has Superfund site monitoring or oversight been impacted or diminished in any way during the government shutdown as compared to the same time period last year? If so, please quantify all such impacts.

The number of employees that were excepted working nationwide on Superfund issues was dynamic and varies by region since the agency directs work to meet specific needs as allowed by law. EPA Headquarters and Regional excepted staff in the Superfund Program continue to respond at sites or incidents where there was an imminent threat to the safety of human life or to the protection of property. Ongoing work at Superfund sites also continued without EPA involvement up to the point that additional EPA direction or funding is needed. Now that the government has reopened, cleanup activities requiring new funding will restart and sites where cleanup activities had been stopped or shut down are able to commence.

45. Have you or any member of EPA staff directed EPA's Office of General Counsel (OGC) to engage in any work since December 29, 2018? Please provide this Committee with a comprehensive list of the types and scope of work performed by OGC staff since December 29, 2018, noting specifically any task that relates to (i) your nomination or confirmation hearing; (ii) pending or ongoing regulatory matters; and (iii) enforcement actions or consent decrees.

The Office of General Counsel (OGC) worked on excepted activities since December 29, 2018 providing significant legal advice on permissible activity during the shutdown. OGC appropriations law experts responded to questions from numerous EPA offices regarding whether certain agency activities could continue during the lapse in appropriations and have engaged regularly with OMB counsel to ensure excepted functions comport with legal requirements. In consultation with the Department of Justice (DOJ), OGC sought to extend court filing deadlines and court-ordered deadlines to take regulatory actions. In instances where an extension was not granted, the Agency worked with DOJ to draft required filings and continued work on pending regulatory actions to meet court-ordered deadlines. OGC also provided legal review and counsel connected to preparing for the confirmation hearing and responding to post-hearing Questions for the Record.

46. On December 28, 2019, EPA tweeted: "Due to a lapse in appropriations, EPA websites and social media will not be regularly updated. . . . In the event of an environmental emergency threatening the safety of human life or to protect certain property, epa.gov will be updated with appropriate information." Aside from a post on January 10, 2019 announcing an enforcement settlement with Fiat Chrysler, EPA's social media accounts have been silent since EPA closed on December 29, 2018. However, on the day of your confirmation hearing, January 16, 2019, EPA's Twitter feed began posting messages promoting your nomination, including encouraging the public to watch your hearing, quoting statistics from your testimony, and posting an op-ed from Chairman Barrasso praising your nomination. On that same day, EPA also issued press releases to reporters with Chairman Barrasso's op-ed and your written testimony.

    a. Have you or any member of EPA staff directed EPA's Office of Public Affairs (OPA) to engage in any work since December 29, 2018?

    A portion of the staff within the EPA's Office of Public Affairs engaged in work during the shutdown. This work included preparing the Acting Administrator for his confirmation hearing, participating in preparatory briefings, drafting briefing documents, coordinating a comprehensive list of Agency accomplishments, as well as preparing the Acting Administrator's opening statement for the confirmation hearing. In addition, OPA staff worked on the communications materials for the Fiat Chrysler enforcement settlement announcement with the Department of Justice, in order to comply with a court order. Other activities included responding incoming press inquiries about Superfund and Emergency Removal sites that fall under the environmental emergency threatening the safety of human life or property category. Finally, OPA assisted the Acting Administrator in tweeting condolences to the family of former EPA Administrator Doug Costle, on his passing.

    b. Do you consider your nomination or confirmation to constitute an "environmental emergency threatening the safety of human life" or property? If so, do you believe your nomination and confirmation warranted requiring furloughed OPA staff to draft and post on social media accounts?

    Work associated with my nomination and confirmation is pursuant to the President's constitutional appointment power, and necessary to allow the Senate to fulfill its constitutional role of advice and consent on the President's nominees. All EPA staff working on the nomination hearing were acting in response to those authorities. This work constitutes an excepted activity that occurred during the lapse in appropriations for the following reasons. First, it falls under the President's constitutional authority under the Appointments Clause and is necessary for the President's discharge of that authority. And, second, as the legislative branch has enacted appropriations for FY 2019 and is not subject to the lapse in the appropriations, my participation in the scheduled hearing was necessary for

the Congress's funded function to be effective (and my absence from my own confirmation hearing would significantly damage the Committee's confirmation hearing), and was therefore necessarily implied to continue during EPA's lapse in appropriations. This is consistent with the December 13, 1995 Office of Legal Counsel decision, *Effect of Appropriations for Other Agencies and Branches on the Authority to Continue Department of Justice Functions During the Lapse in the Department's Appropriations.* The OMB General Counsel concurred with EPA that I could prepare for and participate in his confirmation hearing and receive support from EPA staff as necessary to prepare for and participate in the hearing.

c. Please provide this Committee with a comprehensive list of the types and scope of work performed by OPA staff since December 29, 2018, noting specifically any task that relates to (i) your nomination or confirmation hearing; (ii) pending or ongoing regulatory matters; and (iii) enforcement actions or consent decrees.

A portion of the staff within the EPA's Office of Public Affairs engaged in work during the shutdown. This work has included OPA staff worked on preparing the Acting Administrator for his confirmation hearing, participating in preparatory briefings, drafting briefing documents, coordinating a comprehensive list of Agency accomplishments, as well as preparing the Acting Administrator's opening statement for the confirmation hearing. In addition, OPA staff worked on the communications materials for the Fiat Chrysler enforcement settlement announcement with the Department of Justice, in order to comply with a court order. Other activities included responding incoming press inquiries about Superfund and Emergency Removal sites that fall under the environmental emergency threatening the safety of human life or property category. Finally, OPA assisted the Acting Administrator in tweeting condolences to the family of former EPA Administrator Doug Costle, on his passing.

47. Tens of thousands of EPA staff and contractors were furloughed after the federal government was shut down and others have been asked to work for little or no pay.

I sympathize with those impacted by the shutdown. I remember experiencing a shutdown as a career EPA employee in the 1990s. As a general matter, the Privacy Act of 1974 limits the types of information about individuals that federal agencies can collect and how that information can be maintained. EPA has not collected the information referenced in this question, as that information has no connection with our specific statutory mission, and my understanding is that these types of records would not be excepted from the Privacy Act in any event.

a. How many EPA staff or contractors have missed or made late rent or mortgage payments, or are facing eviction or foreclosure?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

b. How many EPA staff or contractors have missed or made late student loan payments during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

c. How many EPA staff or contractors have missed payments on auto loans or leases during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

d. How many EPA staff or contractors have missed credit card payments, or incurred credit card interest as a result of their inability to make those payments?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

e. How many EPA staff or contractors have been unable to pay for child care during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

f. How many EPA staff or contractors have been unable to pay medical expenses for themselves or their families during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

g. How many EPA staff or contractors have filed for unemployment benefits?

The EPA has posted guidance generated from the Office of Personnel Management to assist its employees with any financial challenges they are facing during the shutdown. Currently, a total of 1,645 EPA employees have applied for unemployment benefits as of January 22, 2019. We do not have any information on the nonfederal workforce. The EPA does not have any way to track any other specific information regarding EPA employees or contractors' financial hardships during this time period.

h. How many EPA staff or contractors have attempted to get part-time or temporary jobs during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

i. How many EPA staff or contractors have had their credit scores impacted by the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

j. How many EPA staff or contractors have applied for private loans to make ends meet during the shutdown? How many were rejected?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

k. How many EPA staff or contractors have been forced to spend money from their savings accounts, retirement accounts, 401ks, pension funds, or children's 529 college funds as a result of the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

l. How many EPA staff or contractors have been forced to secure, or attempt to secure private loans or additional lines of credit as a result of the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

m. How many EPA staff or contractors have been forced to pawn or sell personal effects or real property as a result of the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

48. It is my understanding that the EPA-managed projects listed below have stopped due to the shutdown.

a. Please confirm whether that is true for each project.

No emergency responses were halted during the shutdown.

b. In addition, please supplement this list with additional similar projects around the country that are halted because of the shutdown.
   i. Camp Fire, Paradise, CA (household waste cleanup)

      The activities associated with the cleanup of household waste resulting from the Camp Fire continued during the shutdown.

   ii. Whiting Metals, Whiting, Indiana (cited for harmful levels of airborne lead)

      Air Monitoring via EPA's XACT monitor continued during the shutdown at the Whiting Metals site in Whiting, IN with IDEM, the state environmental agency, conducting some routine maintenance on the equipment. IDEM continues to conduct filter-based monitoring on site, collecting a sample every third day.

   iii. SH Bell, East Liverpool, Ohio (fence line monitoring, cited for airborne manganese)

      Although US EPA oversees the ambient air monitoring performed at SH Bell, East Liverpool, OH, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. SH Bell East Liverpool is required by its consent decree with the US Department of Justice and US EPA to perform monitoring. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

   iv. SH Bell, Chicago, Illinois (fence line monitoring, cited for airborne manganese)

      Although US EPA oversees the ambient air monitoring performed at SH Bell, Chicago, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. SH Bell Chicago is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

   v. Watco, Chicago, Illinois (fence line monitoring, cited for airborne manganese)

      Although US EPA oversees the ambient air monitoring performed at Watco, Chicago, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable

document. Watco is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

vi. Sterigenics, Willowbrook, Illinois (ethylene oxide)

EPA Air Monitoring sample collection continued during the partial government shutdown. The Office of Air Quality Planning and Standards has been analyzing the data.

vii. CII Rain Carbon, Robinson, Illinois (cited for airborne particulate matter)

Although US EPA reviews the ambient air monitoring performed at CII Carbon, Robinson, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. CII Carbon is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

viii. NASCO, Chicago, Illinois (awaiting results of metal and particulate matter monitoring

Although US EPA reviews the ambient air monitoring performed at NASCO, Chicago, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. NASCO is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

ix. General Iron, Chicago, Illinois (cited for Volatile Organic Compounds)

There is no pending testing to be performed at General Iron.

x. USS Lead, East Chicago, Illinois (superfund emergency removal for lead, relocation of residents, soil removal)

The USS Lead cleanup did not stop work due to the shutdown. The residential yard cleanups were suspended prior to the shutdown due to the winter weather. It is anticipated that cleanup will start again in the spring as previously planned.

xi. St. Regis Paper Co., Cass Lake, Minnesota (clean-up of dioxin, pentachlorophenol, PAHs)

The remedial site does not have any active cleanup occurring at this time. The shutdown did suspend progress on finalizing a proposed cleanup plan for public comment.

xii. Lukenheimer Foundry, Cincinnati Ohio (clean-up of heavy metals, corrosives, ignitable wastes)

This removal action was suspended during the shutdown.

xiii. Graveyard Auto, Clarksville, Indiana (clean-up of leaking drums)

EPA has secured drummed waste onsite in a Conex box at the site. The remaining site activities, including waste disposal and soil excavation, are on hold pending action memo approval, which was suspended during to the shutdown.

xiv. C&H Mineral, Hubbel, MI (clean-up delayed of arsenic, lead)

This time-critical removal action did not stop due to the shutdown. The site is located in Upper Peninsula of Michigan, and construction was suspended due to the weather. It is scheduled to begin in the spring or as soon as weather condition permit construction.

49. EPA's Safe Drinking Water Information System (SDWIS) identifies which public water systems are in violation of drinking water standards and provides information on the severity of each violation. Unfortunately, a recent assessment of SDWIS drinking water reports indicates a major drop in enforcement actions. It appears that as a result of the government shutdown, EPA did not make its quarterly Dec 31, 2018 update to SDWIS. This means that communities will not have the most up-to-date information on the quality of their drinking water.

    a. Please confirm whether it is true that EPA is unable to update SDWIS because of the government shutdown.
    b. If you answered the first question in the affirmative, please explain the rationale behind your determination to allocate resources away from updating drinking water contamination data and to your confirmation hearing preparations.

The EPA did not complete its quarterly update of SDWIS before December 31, 2018 and will perform the update now that when Congress has provided appropriations for the agency. The data entered in SDWIS is provided by the communities that collected the data, meaning they already have access to their own drinking water quality

information. SDWIS contains information about public water systems and their violations of the EPA's drinking water regulations, as reported to the EPA by the states. The state agency with primary enforcement responsibility has access to the compliance data and is responsible for enforcing any public notification requirements to ensure that water systems provide safe water to their customers. Updating SDWIS, a federal database, does not satisfy the requirements of an excepted activity under the Anti-Deficiency Act, therefore EPA could not perform updates during the government shutdown.

Questions on Congressional Correspondence

50. For approximately the past year and a half, EPA has consistently provided documents I have requested in oversight letters at the same time or earlier than the same materials were being provided to Freedom of Information Act (FOIA) requestors or House Committee Chairs. Will you commit to continuing this practice of providing me with responsive materials at the same time they are provided to House Committee Chairs and FOIA requestors, or sooner? If not, please explain why not.

    Yes.

51. Since you took the helm at EPA as Acting Administrator on July 6, 2018, I and members of this Committee have sent you many letters containing document requests that remain unanswered. A number of letters that were sent to your predecessor also lack complete responses. By what specific date should we expect to receive EPA's complete response to each of the following letters?

    a. April 4, 2017 – letter on political appointees' obstruction of career staff's estimates related to the implementation of the HONEST Act

        EPA provided a response on August 23, 2017.

    b. April 6, 2017 and April 14, 2017 – letters on EPA's withdrawal of an Information Collection Request sent to the oil and gas industry

        EPA provided a response on May 31, 2017.

    c. April 7, 2017 – letter on EPA's plans to rescind the Clean Power Plan

        EPA provided a response on May 9, 2017.

    d. August 31, 2017 – letter on secrecy at EPA

        We look forward to continuing to work with your staff to provide a response.

e. October 25, 2017 – letter detailing concerns about the lead and copper rule

EPA provided a response on January 29, 2018.

f. October 26, 2017 – letter on EPA's decision to repeal the Clean Power Plan

EPA provided a response on November 28, 2017.

g. December 13, 2017 – letter on EPA's Sue and Settle Directive

EPA provided a response on January 30, 2018.

h. January 9, 2018 – letter on Mr. Pruitt's appointment of two scientists to serve on EPA's Federal Advisory Committees who have financial conflicts of interest

We look forward to continuing to work with your staff to provide a response.

i. January 18, 2018 – letter on a range of topics, including TSCA, climate change, and fuel efficiency standards

EPA provided a response on May 10, 2018.

j. January 19, 2018 – letter on Mr. Pruitt's meetings with industry

EPA provided a response on August 21, 2018.

k. January 19, 2018 – letter on transparency, enforcement, and various other concerns

EPA provided a response on August 2, 2018.

l. March 6, 2018 – letter on Mr. Pruitt's wasteful spending

EPA provided a response on August 21, 2018.

m. March 12, 2018 – letter on EPA's decision to repeal emissions standards for glider trucks

EPA provided a response on October 16, 2018.

n. March 14, 2018 – letter on EPA's reversal of the once-in-always-in policy

EPA provided responses on June 6, 2018, and July 9.

o. April 3, 2018 – letter on Mr. Pruitt's decision to reverse EPA's prior determination on greenhouse gas tailpipe standards

EPA provided a response on June 6, 2018, and subsequent link to documents responsive to this letter on November 21.

p. April 3, 2018 – letter on Mr. Pruitt's December 2017 trip to Morocco

We look forward to continuing to work with your staff to provide a response.

q. April 9, 2018 – letter on Mr. Pruitt's use of Safe Drinking Water Act authority to award large pay raises to favored aides

A link to documents responsive to this request was sent on August 31, 2018. We look forward to continuing to work with your staff to provide a response.

r. April 12, 2018 – letter on Mr. Pruitt's multiple ethics and wasteful spending practices

A link to documents responsive to this request was sent on May 4, 2018, August 21, and November 20. We look forward to continuing to work with your staff to provide a response.

s. April 24, 2018 – letter on EPA's drafting of the secret science rule and its major flaws

We look forward to continuing to work with your staff to provide a response.

t. May 3, 2018 – letter on EPA's signing of a Cooperative Research and Development Agreement with Water-Gen

We look forward to continuing to work with your staff to provide a response.

u. May 15, 2018 – letter on reports that the White House prevented the release of a study concluding that PFAS poses a danger to human health at lower levels than set by EPA

EPA provided a response on May 21, 2018.

v. May 17, 2018 – letter on EPA's significant delay of the IRIS assessment on formaldehyde

EPA provided a response on July 5, 2018.

w. May 21, 2018 – letter on Mr. Pruitt's compliance with rules governing his legal defense fund

EPA provided a response on July 31, 2018.

x. June 27, 2018 – letter on EPA's reduced enforcement of the Clean Water Act

We look forward to continuing to work with your staff to provide a response.

y. November 15, 2018 – letter on EPA's federal advisory committees

We look forward to continuing to work with your staff to provide a response.

z. December 3, 2018 – letter on the Trump Administration's preparation and release of the Fourth National Climate Assessment

We look forward to continuing to work with your staff to provide a response.

aa. December 6, 2018 – letter regarding EPA's compliance with GSA's travel regulations

We look forward to continuing to work with your staff to provide a response.

bb. December 19, 2018 – letter requesting communications between industry and EPA about fuel economy or greenhouse gas tailpipe standards

We look forward to continuing to work with your staff to provide a response.

cc. January 10, 2019 – letter requesting documents related to the government shutdown and use of furloughed staff to prepare you for your confirmation hearing

We look forward to continuing to work with your staff to provide a response.

dd. January 10, 2019 – letter on Diane Hendricks' $50,000 contribution to Scott Pruitt's legal defense fund

We look forward to continuing to work with your staff to provide a response.

Questions on other Clean Air Act issues

52. The Ozone Transport Commission has documented electric generating units (EGUs) that appear to have turned off their nitrogen oxide (Nox) controls. What are the public health and environmental impacts of these actions? Are downwind states including Maryland, Delaware and Connecticut adversely impacted by transported NOx and/or ozone?

The Clean Air Act's "good neighbor" provision requires EPA and states to address interstate transport of air pollution that affects downwind states' ability to attain and maintain National Ambient Air Quality Standards (NAAQS). Specifically, Clean Air Act section 110(a)(2)(D)(i)(I) requires each state in its State Implementation Plan (SIP) to prohibit emissions that will contribute significantly to nonattainment of a NAAQS, or interfere with maintenance of a NAAQS, in a downwind state.

EPA has determined that the Cross-State Air Pollution Rule (CSAPR), the CSAPR Update, and the CSAPR Close-out (finalized 12/6/18) fully address states' good neighbor obligations for the 1997 and 2008 ozone NAAQS and the 1997 and 2006 PM2.5 NAAQS. For power plants covered by this program for cross-border ozone, nitrogen oxide emissions have dropped by over 20 percent - roughly 80,000 tons - just since the 2016 ozone season.

The recently finalized CSAPR Close-out rule determined that emission reductions under the CSAPR Update will sufficiently control transported ozone pollution with respect to the 2008 ozone NAAQS in states covered by the Update. EPA is actively working with states to provide the technical tools and information to facilitate "good neighbor" state plans addressing interstate transport under the 2015 ozone NAAQS. More information on EPA's efforts to address interstate ozone transport is available at: https://www.epa.gov/interstate-air-pollution-transport.

53. In your August 1, 2018 hearing before the EPW Committee, you said you could not "predict with certainty" the effects EPA's rollbacks would have on transport pollution and attainment status for states. In part, that is because at the time EPA had not modeled any of the effects these rules may or may not have on states. Since that time, has EPA modeled the effects of the proposed clean air regulations and changes in guidance on air pollution and transport pollution?

The U.S. is a global leader in clean air progress, and EPA expects these trends to continue in the future. For example, as part of its effort to provide data and analyses to support state planning efforts, EPA projects that nearly all areas of the country will meet the 2008 and 2015 ozone standards in the early 2020s. These projections are based on an air quality modeling platform which includes emissions, meteorology and other inputs for a base year as well as emissions for a future analytic year base case. EPA projections are based on a number of key inputs, including on-the-books rules. For the actions identified, EPA regularly conducts accompanying analyses to evaluate relevant regulatory impacts.

This progress builds upon recent trends which are not driven solely by Clean Air Act requirements. Between 2007 and 2017, emissions of nitrogen oxide (NOx), the key contributor to ground-level ozone, have dropped in the U.S. by more than 40 percent. For power plants that EPA and states regulate to address cross-border ozone contributions, NOx emissions dropped by 77,000 tons (21 percent) just between the 2016 and 2017 ozone seasons. From 1970 to 2017, the combined emissions of the six key pollutants regulated under the National Ambient Air Quality Standards dropped by 73 percent, while the U.S. economy grew more than 260 percent and the population continued to expand.

a. If the Affordable Clean Energy Act goes final, how will that affect downwind pollution and the states' ability to meet attainment status for all National Ambient Air Quality Standards (NAAQS), and State Implementation Plans (SIPs), since EPA estimates there will be an increase in sulfur dioxide and ozone pollution from this rule?

   The proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000 to 15,000 tons). The Clean Power Plan (CPP) was stayed by the Supreme Court and thus never achieved any emission reductions.

b. If EPA rescinds MATS, how will that affect downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

   EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind the emission standards to which those units are currently subject.

c. What are the effects of the "once in, always in" change in guidance on downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

   In a 2007 proposed rule, EPA projected that rescinding the "once in, always in" policy would result in an overall reduction in emissions. Further, a rulemaking currently underway to implement the January 2018 interpretive rule, rescinding the "once in, always in" policy, will provide further information regarding the expected emission consequences of this action.

d. What are the effects of the New Source Review changes in guidance on downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

   EPA does not expect the improvements it has been making to the New Source Review program to have any adverse effects on states' ability to meet

attainment status. Where EPA is following up on its NSR guidance with rulemaking, appropriate analyses addressing this matter will be undertaken.

e. How will the changes in regulating methane emissions from oil and gas affect downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

EPA's proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry would streamline implementation, reduce duplicative EPA and state requirements, and significantly decrease unnecessary burdens on domestic energy producers. The accompanying regulatory impact analysis (RIA), which discusses the emissions impacts of this proposal, is available at: https://www.epa.gov/sites/production/files/2018-09/documents/oil_and_natural_gas_nsps_reconsideration_proposal_ria.pdf. The RIA notes that, due to the high degree of variability in ozone and particulate matter responsiveness to volatile organic compounds, EPA did not evaluate the effects on attainment status.

54. Can you name three policies you have formally proposed (not just announced that you will propose) or implemented that the scientific community believes will actually lead Americans to breathe LESS toxic air pollution than they would have had all the protective rules implemented by President Obama stayed in place?

Virtually all of EPA's recent Clean Air Act proposed and final actions would result in continued reductions of air pollution, including hazardous air pollutants, criteria pollutants like ozone and particulate matter, as well as greenhouse gases. For example, the proposed Affordable Clean Energy rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide (12 to 27 million tons), sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000 to 15,000 tons). I would note that the Clean Power Plan was stayed by the Supreme Court and thus never achieved any emission reductions. In addition, on November 13, 2018, EPA announced the Cleaner Trucks Initiative, a future rulemaking to update standards for nitrogen oxide (NOx) emissions from highway heavy-duty trucks and engines. Over the last decade, NOx emissions in the U.S. have dropped by more than 40 percent. Nonetheless, EPA expects that heavy-duty trucks will be responsible for one-third of NOx emissions from transportation in 2025. Updating these standards will result in NOx reductions from mobile sources and could be one important way that allows areas across the U.S. to meet National Ambient Air Quality Standards for ozone and particulate matter. Updating the standards will also offer opportunities to reduce regulatory burden through smarter program design.

55. During the August 1, 2018 EPW hearing, I asked you several questions for the record regarding the Renewable Fuel Standard (RFS) and my continued concerns about the volatility in the RFS compliance trading system used by EPA, known as the Renewable Identification Number (RIN) market. Despite promises to act on this issue, I've seen no action to date from EPA on the issue of RIN market manipulation and still do not have a clear answer on how EPA is coordinating with other agencies to address this issue. I was extremely disappointed by your August 1st hearing answers and ask that you please provide greater clarity.

    a. Please provide the dates, times and details of any communication, including any emails and phone calls, between the Commodity Futures Trading Commission (CFTC) and EPA since the CFTC-EPA memorandum of understanding on RIN market manipulation was signed.

    EPA regularly works with other agencies, including the CFTC, on implementation and continued improvement of the Renewable Fuel Standard program. CFTC has a wealth of expertise in terms of rooting out market manipulation and improving the overall function of our nation's commodities markets. EPA has been working with CFTC technical staff to assess what tools or structural approaches could be employed in the RIN market to reduce any manipulation, provide greater transparency and establish stability. Most recently, EPA's transportation team had an extensive conversation with the CFTC regarding these ongoing efforts. Pursuant to President Trump's direction, the agency plans to propose a RIN market reform rule in 2019 that will be followed by a public notice and comment period. We appreciate your interest in these issues and will keep you updated as they progress.

    b. CFTC has stated publicly that it provided EPA with recommendations on what data EPA should be collecting to mitigate RIN market manipulation. Please provide CFTC's recommendations and explain why EPA has refused to make this information public.

    EPA has ongoing dialogue with the CFTC and continues to work consistent with the existing MOU. CFTC has provided recommendations on a number of options aimed at improving the RIN market including the collection of necessary data. Many of CFTC's recommendations will be reflected in our forthcoming proposed RIN market reform rule. Once complete, the proposed rule will be made public and will be subject to a notice and comment period.

c. In your answers to my August 1st hearing questions you indicated your staff had only met with Federal Trade Commission (FTC) staff one time. Was that an accurate assessment? Has the number changed since August 1, 2018? And if true, why isn't EPA having ongoing conversations with FTC on this issue?

My understanding is that, from January 2017 to August 2018, EPA had one conversation with the FTC dedicated to this topic. Recent conversations regarding market stability and associated improvements have primarily been with the CFTC. Through the exchange of information among our agency experts, the CFTC expertise has proven to be the most helpful and applicable in terms of developing out the forthcoming proposed RIN market reform rule. Once a draft of the forthcoming proposed rule is complete, subject to appropriations, it will be submitted to the Office of Management and Budget for interagency review, which will provide the FTC an opportunity to review and provide comment.

d. Your answers to my August 1st hearing questions suggest that your staff only shared RIN data with CFTC from 2010 to August 2016. Why hasn't EPA shared any RIN data with CFTC since August 2016?

EPA shared the above-referenced data because both agencies were working to respond to a specific request from the Renewable Fuels Association, which alleged manipulation during a specific timeframe - 2010 to 2016. After review of that information, the CFTC did not find any misbehavior in the market. Outside of that specific request, EPA and CFTC continue to have regular contact to assess options for improving the RIN market. As previously mentioned, many of CFTC's recommendations will be reflected in our forthcoming proposed RIN market reform rule, which will be subject to a public notice and comment period.

e. The State of California has created a dashboard to provide weekly, monthly, quarterly and annually trading data for its own renewable fuel program. After talking to many stakeholders involved in that process, it seems that California's renewable fuel trading dashboard has been able to provide valuable insight into trading and helped reduced market volatility. EPA can easily create a similar dashboard today and not wait for rulemaking. You have already created a dashboard for small refinery waivers, why hasn't EPA created a RIN dashboard that provides the public weekly, quarterly and annual RIN trading data?

EPA posts RIN transactional and compliance information on our RFS Data website. We are open to comments and suggestions for improving and expanding program and market insight. Currently, information is updated the third Thursday of each month to reflect all transactions submitted through the end of the prior month. Last year, we implemented revisions to the website to incorporate additional data through a more interactive dashboard. Please visit the following link for additional

information: https://www.epa.gov/fuels-registration-reporting-and-compliance-help/public-data-renewable-fuel-standard.

f. The CFTC has successfully used position limits to protect against excessive speculation and market manipulation, which helped stabilize markets. In addition, Canada and California have also used position limits as effective market controls to help reduce market credit hoarding. Canada, specifically, has done so regarding their own RFS program with success. Are position limits being considered in any efforts to improve RIN market transparency and has EPA had any discussions with the CFTC about establishing position limits for the RFS RIN market? If not, why not?

Yes, as part of the ongoing conversations EPA has discussed position limits as a means to improve the RIN market. As previously mentioned, many of CFTC's recommendations will be reflected in our forthcoming proposed RIN market reform rule, which will be subject to a public notice and comment period.

g. Has EPA had any discussions with Canada about their biofuel market credit controls? If so, can you elaborate on those discussions? If not, why not?

I am not aware of interactions with Canada on these issues.

56. With a significant non-compliance rate, why isn't EPA's Office of Enforcement and Compliance Assurance enforcing the manufacturer emission reporting requirements under the residential wood heater New Source Performance Standards rules?

OECA has been successfully working with wood heater manufacturers and retailers, who are mostly small business owners, in providing compliance assistance to help them comply with the regulations. In general, the Agency worked with them on any outstanding certification issues, and, when necessary, addressed observed deficiencies/potential violations during the certification process without collecting any penalties or taking other formal enforcement.

57. In your testimony, you highlighted EPA's announcement that it will officially begin the process to set a new national nitrogen oxide (NOx) emissions standard for heavy-duty vehicles.

a. States have been asking EPA to take this action for over two years. Why is EPA waiting until early 2020 to propose regulations?

On November 13, 2018, EPA announced the Cleaner Trucks Initiative (CTI), a future rulemaking to update standards for nitrogen oxide (NOx) emissions from highway heavy-duty trucks and engines. Over the last decade, NOx

emissions in the U.S. have dropped by more than 40 percent. Nonetheless, EPA expects that heavy-duty trucks will be responsible for one-third of NOx emissions from transportation in 2025. Updating these standards will result in NOx reductions from mobile sources and could be one important way that allows areas across the U.S. to meet several National Ambient Air Quality Standards. Updating the standards will also offer opportunities to reduce regulatory burden through smarter program design. As I am sure you recognize, the development of a technically and legally sound rulemaking proposal for an action of this significance and complexity takes time.

b. Will you finalize a rule in time to help states that have ozone nonattainment concerns meet their SIP requirements for the ozone NAAQS?

EPA intends to finalize the rule as expeditiously as possible, consistent with its responsibility to ensure that any final rule is well supported. We expect this action to reduce NOx emissions and obtain NAAQS.

c. What ozone reduction metric will you use to determine whether the proposal is adequately protective of public health?

We expect the rulemaking to evaluate the appropriate metric to evaluate emission reduction.

d. Emissions control technologies are able to reduce NOx emissions by 90%, down to .02 g/bhp-hr, at approximately $500-1000 per diesel truck by 2024 or earlier. Alternative fuel vehicles such as those with natural gas engines already achieve those reductions. How does this estimated cost compare to the current or projected range of cost-effectiveness of stationary control technologies that might otherwise have to be implemented to achieve the same NOx reductions in ozone nonattainment areas?

These are issues that we expect to be addressed during the rulemaking.

The timeline announced in November will allow full engagement with stakeholders and the opportunity to assess policy considerations identified in your question. More information on the CTI is available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative.

Questions on EPA's Use of Science

58. The EPA recently disbanded its 20-member Particulate Matter Review Panel (PMRP) and decided not to convene the Ozone Review Panel. In addition, EPA announced that the responsibility of those two panels to advise on EPA's 5-year review of the National Ambient Air Quality Standards (NAAQS) will be transferred to the significantly smaller seven-member Clean Air Science Advisory Committee (CASAC), and such review will occur on an accelerated schedule. Notably, CASAC's draft comments to you dated December 10, 2018 recommend that you reconvene the PMRP and warns that the accelerated schedule is too short.

    a. Given that your decision to eliminate the first two larger expert panels, transfer the workload to the much smaller CASAC, and speed up the review will have a direct impact on the quality of review conducted, did you consult with CASAC on the accelerated schedule in the memo or the consequences of doing away with panels before you took those actions? If not, please explain why not.
    b. Several members of CASAC have expressed doubt that they have the needed expertise to review the science on particulate matter. Do you still believe that members of this CASAC are qualified to do the work you have asked of them? If so, please explain why.
    c. One of the areas of expertise that is lacking on CASAC is epidemiology, which would information CASAC's understanding of the impacts of particulate matter on early death and heart attacks. Do you believe that CASAC can conduct an informed review of the NAAQS given the absence of this crucial subject matter expertise? If so, please explain why.

CASAC is a seven-member committee, required under Section 109 of the Clean Air Act, which provides critical advice related to National Ambient Air Quality Standards (NAAQS). The membership includes at least one member of the National Academy of Sciences, one physician, and one person who represents a state air pollution control agency. In October 2018, EPA announced the appointment of five new members to the chartered CASAC. More information on CASAC and its members is available at: https://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC.

I believe the current CASAC has the experience and expertise needed to serve in this capacity as well as to complete the reviews for the particulate matter and ozone NAAQS. The chartered CASAC is filled with qualified, independent experts who have decades of experience working on ozone and particulate matter issues and a diverse set of backgrounds in fields like toxicology, engineering, medicine, ecology, and atmospheric science. EPA also has the ability to seek advice from other experts to assist CASAC as needed for these reviews.

Tasking the chartered CASAC with overseeing these reviews ensures the early engagement of the advisors who ultimately provide advice to EPA, and this action is consistent with the Clean Air Act, regulations implementing the Federal Advisory Committee Act, and CASAC's charter. In May 2018, EPA issued a memorandum

outlining a "Back-to-Basics" process for NAAQS under the Clean Air Act. This memo ensures that EPA and its independent science advisors follow a transparent, timely, and efficient process in reviewing and revising public health- and welfare-based NAAQS. Consistent with the memo, EPA intends to finalize any necessary revisions to the ozone and particulate matter NAAQS by the end of 2020.

EPA welcomes feedback during all stages of these reviews from members of the scientific community and public. The Committee has received feedback from a number of outside experts during recent public meetings and teleconferences.

59. Please provide a copy of the IRIS Handbook that has been completed but is not yet published.

The IRIS Handbook is being revised in response to additional comments received from the Agency, and has not concluded the interagency review process. We intend to provide the Handbook when the revision is completed.

Questions on other Clean Water Issues

60. It has been a very long time since Washington, DC struggled with its lead in drinking water discovery, and it has been four years since the drinking water crisis erupted in Flint, MI.
    a. How many lead service lines in Flint have been replaced as of December 31st, 2018?
    b. Administrator Pruitt made lead—especially in drinking water—an agency priority, declaring a "War on Lead" in February 2018. Approximately 5000 municipalities across the country exceeded the 15 parts per billion standard in place at the time of his declaration. How many of those municipalities now comply with that legal limit?
    c. What has EPA done to facilitate that compliance?
    d. Having admitted a failure of oversight in the Flint situation, could you describe how EPA has since strengthened its oversight of state drinking water programs?

The EPA recently received a status report from the City of Flint regarding its ongoing efforts to identify and replace lead service lines, an effort funded in part through the Water Infrastructure Improvements for the Nations Act (WIIN Act). According to the City of Flint: "As of January 14, 2019 there have been 20,131 service lines replaced or identified as copper. The City of Flint has approximately 28,400 active residential water accounts. We have approximately 8269 lines left to identify or replace. If we assume 20% of the remaining 8269 lines to be lead and need replacement we have approximately 1,654 lead service lines remaining in the system. At this time weather is allowing the project to continue and these numbers are subject to change." The City has evaluated connections to more than 15,000 homes and has identified and replaced lead or galvanized steel service lines to over 7,000 homes.

The EPA supports the Michigan Department of Environmental Quality (MDEQ) in its continued efforts to work with the City of Flint and all other public water systems to improve drinking water quality throughout the State of Michigan. This includes working with the City and MDEQ to ensure that the requirements of the EPA's Emergency Order and amendment are being addressed. The drinking water system in Flint has returned to compliance with the Lead and Copper Rule (LCR) and the EPA is committed to supporting the City and State in their efforts to ensure the delivery of a safe and sustainable water supply to the residents of Flint.

The EPA has also reached full agreement with the Inspector General (IG) on the actions the agency will implement in response to the Flint, Michigan IG Report. The EPA's actions to address the IG's recommendations are well underway. For example, the EPA is working aggressively to update the LCR and is working with states to ensure full implementation of existing LCR requirements. That engagement includes working with state, local, tribal and other stakeholders to identify LCR implementation challenges and provide technical assistance and communication tools to address those challenges. To improve technical knowledge and implementation of the LCR and its corrosion control requirements, for example, the EPA conducted approximately 30 in-person technical trainings across the country in all ten EPA regions over the last two years. This full-day training focused on optimal corrosion control treatment to improve compliance and reduce lead exposure at the tap through successful implementation of corrosion control treatment. The training also provided participants, including states, technical assistance providers and water utility operators, an opportunity to work through case studies, analyze actual water system data and participate in interactive activities. Over the last two years, the EPA also hosted its LCR 3-Part Webinar series and monthly webinars for small systems; conducted national training on sample site selection; provided individual trainings to the National Rural Water Association and the State of California; and hosted a three-day online training with Guam and Hawaii. In 2018, the EPA's Office of Research and Development and the Office of Water hosted the National Drinking Water Workshop with 400 participants in attendance. This workshop included multiple sessions on lead testing, lead service line replacement, and other LCR topics. It also included a two-hour discussion between states, the EPA, academia experts and workshop participants on key issues and implementation challenges related to the LCR.

The EPA also collaborates with states and public water systems to update our nation's drinking water infrastructure, including important projects to reduce lead in drinking water. The FY 2019 President's Budget request included $863.2 million for the Drinking Water State Revolving Fund, allowing states to finance high priority infrastructure investments, including the replacement of lead service lines to protect human health. The FY 2018 Omnibus appropriation provided $50 million for three new grant programs under the WIIN Act. These funds will help public water systems meet Safe Drinking Water Act requirements, provide funding for infrastructure projects that reduce the presence of lead in drinking water, and assist schools and childcare facilities with voluntary lead testing programs. In addition, the Water Infrastructure Finance and Innovation Act (WIFIA) program is inviting 39 projects in 16 states and

Washington, D.C. to apply for loans totaling over $5 billion to help finance over $10 billion in water infrastructure investments, in FY 2019, but not all of those projects are associated with lead. Multiple projects selected in FY18 involve reducing lead or other contaminants and address aging infrastructure.

As indicated in the EPA's response to the IG Report, the agency has also worked to strengthen its oversight of state drinking water programs nationwide. For example, in response to the EPA's, New England states', and water utility proactive measures, as of August 2018, more than 99% of the public water supply systems in New England that are obligated to meet requirements of the LCR are meeting the drinking water lead action levels. Recognizing that there is no safe level of lead in drinking water, the 1991 LCR set a health-based maximum contaminant level goal of zero. The LCR also established an action level of 0.015 mg/L (15 ppb) for lead. Exceedance of the lead action level is not a violation but rather results in the public water system having to take actions to reduce lead exposure, which could include optimizing corrosion control, removing lead service lines, and conducting public education. Failure to take such actions results in a violation of the LCR that is called a treatment technique violation.

A 2016 analysis prepared by an environmental nongovernmental organization indicated that 5,363 community water systems had violated the LCR based on 2015 SDWIS data. According to the report, the analysis included counts of violations for failure to take actions to reduce lead exposure, to test, or to report test results. The majority of these community water systems receiving violations had a treatment technique violation. Based on the most recent data in SDWIS, approximately 97% of these treatment technique violations have returned to compliance. Since 2016, the EPA and the states have enhanced oversight and collaboratively provided targeted technical assistance to address compliance with the complex and challenging LCR requirements. This assistance has improved the states' technical capabilities to address LCR violations and aid systems in achieving compliance with the LCR.

61. Please explain EPA's intentions regarding the discharge of partially treated or "blended" sewage from wastewater treatment plants.

    a. Does EPA intend to propose regulations permitting discharge of partially treated or blended sewage from wastewater treatment plants? If so, when?
    b. If so, under what circumstances (i.e., what thresholds of rainfall, etc.)?
    c. Does EPA have evidence that such discharges are safe for public health and the environment? If so, please provide it.
    d. In EPA's assessment, how effective are so-called "side-stream" technologies, proposed by treatment plant operators, as an alternative to their historic treatment methods?

The EPA is currently engaged in rulemaking to address longstanding questions regarding permit compliance in wet weather events. The agency is working with stakeholders as we prepare options for the proposed rulemaking. No final decisions

regarding the content of the proposed rule have been made at this time. The EPA will consider all appropriate information regarding the relationship between wet weather discharges and compliance with water quality standards during the rulemaking process, including, for example, resources like a 2014 public forum the EPA facilitated on potential public health impacts associated with wet weather discharge events. Documents from that forum are available at: https://www.epa.gov/npdes/npdes-experts-forum-public-health-impacts-wet-weather-blending-documents. The EPA will also consider available treatment, cost and related data on potential side-stream technologies as it continues its stakeholder outreach and proposed rulemaking.

62. As you know, the proposed WOTUS Rule you and the Army Corps of Engineers propose is notably lacking in specifics related to some of the necessary details the public needs to fully consider the implications of your proposal, much less address the numerous and potentially rule-obliterating questions posed in the preamble.

    a. With that concern in mind, please provide estimates of the miles and acres affected for the following categories of waters covered by the proposed rule (please provide this information on a state-by-state basis):
        i. The number of miles of ephemeral streams;
        ii. The number of miles of intermittent streams;
        iii. The acres of wetlands without a surface water connection to any "waters of the United States" as the December 2018 proposal would define that term;
        iv. The acres of wetlands without a surface water connection to any "waters of the United States" as the December 2018 proposal would define that term plus those wetlands with a surface water connection only to intermittent streams; and
        v. The acres of ponds that will not qualify as "waters of the United States" as the December 2018 proposal would define that term.

    b. To further assist our consideration of the proposed rule, please provide the following information (also on a state-by-state basis) for each of the categories of waters identified in response to question 16(a) above:
        i. The population served by drinking water systems with source water protection areas containing any of the waters identified above.
        ii. Any dischargers permitted under the National Pollutant Discharge Elimination System to discharge to any of the waters identified above.
        iii. Any facilities subject to the oil spill prevention, control, and countermeasure program because of their potential to affect any of the waters identified above.
        iv. Any of the waters identified included on a state list submitted to EPA pursuant to section 303(d)(1) of the Clean Water Act.
        v. Any enforcement action under the authority of section 309 of the Clean Water Act, in which the water body about which the violation was alleged

was any of the waters identified above. This includes any compliance order, civil or criminal action, or assessed administrative penalty.

vi. Any jurisdictional determination (either preliminary or approved) by the U.S. Army Corps of Engineers which assessed whether a water body was a "water of the United States" and for which the subject water was any of the waters identified above.

vii. Any activity for which an applicant has sought a federal license or permit and which may result in a discharge into any of the waters identified above, for which the state has granted, denied, waived, or provided conditional certification pursuant to section 401 of the Clean Water Act.

The EPA and the Department of the Army provided significant, substantive supporting documentation for the proposed "waters of the United States" rule that was posted to our website in December along with the pre-publication text of the proposed rule and its preamble. See https://www.epa.gov/wotus-rule/step-two-revise. The documents entitled "Resource and Programmatic Assessment for the Proposed Revised Definition of 'Waters of the United States'" and "Economic Analysis for the Proposed Revised Definition of 'Waters of the United States'" identify, where possible, how the proposed definition might affect categories of water resources across the country and potential effects on Clean Water Act programs. The agencies have also identified data limitations that prevent quantitative national estimates for many Clean Water Act programs, due in large part to the fact there is no nationwide map depicting "waters of the United States" under previous regulations nor that could identify waters that would be jurisdictional under the proposal.

With regard to water resources, state-based information on ephemeral, intermittent, and perennial stream miles and wetland acreage as mapped in the National Hydrography Dataset and National Wetlands Inventory, respectively, is presented in Table A-1 of the Economic Analysis. The numbers and percentages of streams and wetlands by category presented in Table A-1, however, do not equate to a quantification of waters that will or will not be jurisdictional under the proposed rule or existing regulation. The agencies discuss potential impacts of the proposal on Clean Water Act section 303, 311, 401, 402, and 404 programs and other relevant federal regulations in the Economic Analysis and Resource and Programmatic Assessment. Regarding data limitations, see for example the discussion in Section II.C. of the Economic Analysis and Section 4 of the Resource and Programmatic Assessment Appendix A. With respect to section 404 permitting, see for example Table 3 of the Resource and Programmatic Assessment Appendix A summarizing the total number of waters by category in the Army's fiscal year 2013-2017 approved jurisdictional determination data under pre-2015 practice. Note that in addition to the analyses discussed in the documents supporting the proposal, the agencies maintain websites that contain specific information on the jurisdictional determinations completed under section 404. See http://corpsmapu.usace.army.mil/cm_apex/f?p=340:11:0::NO and https://watersgeo.epa.gov/cwa/CWA-JDs/.

In Clean Water Act enforcement cases, the EPA would have gathered evidence to support a claim that there is a discharge to a navigable water or a tributary of a navigable water or a wetland adjacent to a water of the United States applying the EPA's 1988 regulations, the 2003 *SWANCC* legal memorandum, and the 2008 *Rapanos* guidance. However, those documents all lack the clarity of the December 2018 proposed rule. For example, none of them use the 2018 proposal's definitions of "intermittent," "ephemeral," and "adjacent wetlands," and do not define "tributary." Accordingly, the factual records the agency would have developed to support a claim of jurisdiction do not lend themselves to categorizing enforcement actions as you have requested.

Senator Booker:

63. Following the passage of the newly strengthened Toxic Substances Control Act (TSCA), EPA proposed two rules banning certain uses of trichloroethylene (TCE). EPA has since delayed finalizing these bans for more than 2 years and has stated its intent to ignore exposure to TCE from releases into air, water, and land in a review of the chemical.

    a. Are you aware that TCE is a known carcinogen linked to neurological damage and birth defects that is polluting the air, land, and water in my state and in states across the country?
    b. Will you commit to finalizing the proposed bans on TCE within 90 days in order to protect the health of children and workers while you continue the broader risk evaluation of TCE under TSCA?
    c. Will you commit to ensuring that EPA incorporates all known releases of and exposure to TCE, including through air, soil, and water, in its ongoing risk evaluation of TCE?

EPA has determined that the most-appropriate approach for addressing TCE exposures identified in the proposed rule is to evaluate those exposures in the risk evaluation currently being conducted using the scientific standards required by the Lautenberg Act amendments to TSCA. The risk evaluation will include all releases and exposure pathways that are appropriate under the conditions of use described in the TCE problem formulation document. As required, EPA will evaluate the risks to sensitive subpopulations identified as relevant to the evaluation, including children and workers as appropriate. The draft risk evaluation will be subject to public comment and scientific peer review, and the final risk evaluation is expected to be published by the end of 2019. This does not preclude EPA from finalizing the proposed TCE rule.

64. One positive action taken under Administrator Pruitt was EPA's commitment to finalizing a ban proposed for all consumer and most commercial uses of methylene chloride in paint strippers. The record EPA assembled two years ago to support the need for a ban on most commercial as well as consumer uses is clear: Allowing such products to stay on the market based on reliance on increased labeling, protective equipment, or training requirements will not protect the public's or workers' health. It now appears that you are rolling back that

commitment and planning to limit the ban of this highly toxic and acutely lethal chemical to consumer uses only.

a. Are you aware that workers constitute the vast majority of the more than 50 deaths from these uses, and that any failure to or delay in protecting workers will lead to more deaths?
b. Will you commit to finalizing a ban for all consumer and most commercial uses of methylene chloride, as originally proposed by the EPA?

Yes, under certain circumstances, methylene chloride not only can pose danger, but has also caused worker deaths. The EPA submitted a final rule for methylene chloride paint and coating removal to OMB for interagency review on December 21, 2018, prior to the lapse in appropriations. Questions regarding the scope, implementation, and timing of the final rule and associated EPA actions will depend on the outcome of the interagency review process.

65. As you know, your predecessor declared a "War on Lead" in February 2018 due to the harmful effects this toxic metal can have on human health. As you also know, the legal limit on lead in drinking water is 15 ppb. When the "War on Lead" was announced, approximately 5000 municipalities across the country exceeded that number.

    a. To date, how many of those municipalities have come within the legal limit?

Recognizing that any level of lead in drinking water poses some risk, the 1991 Lead and Copper Rule (LCR) set a health-based maximum contaminant level goal of zero. The LCR also established an action level of 0.015 mg/L (15 ppb) for lead. Exceedance of the lead action level is not a violation but rather results in the public water system having to take actions to reduce lead exposure, which could include optimizing corrosion control, removing lead service lines, and conducting public education. Failure to take such actions results in a violation of the LCR that is called a treatment technique violation.

A 2016 analysis prepared by an environmental nongovernmental organization indicated that 5,363 community water systems had violated the LCR based on 2015 SDWIS data. According to the report, the analysis included counts of violations for failure to take actions to reduce lead exposure, to test, or to report test results. The majority of these community water systems receiving violations had a treatment technique violation. Based on the most recent data in SDWIS, approximately 97% of these treatment technique violations have returned to compliance. Since 2016, the EPA and the states have enhanced oversight and collaboratively provided targeted technical assistance to address compliance with the complex and challenging LCR requirements. This assistance has improved the states' technical capabilities to address LCR violations and aid systems in achieving compliance with the LCR.

66. Environmental Justice is something that I am very concerned about. As you know, low income communities, communities of color and indigenous communities are disproportionately located near and harmed by sources of pollution. So I appreciated that in your opening statement that under your leadership EPA was focused on helping the communities that are on the front lines of pollution. But unfortunately it seems to me that the actions you have already taken at EPA will cause great harm in these communities.

As I testified at my hearing, I take very seriously the matter of environmental justice. In the course of developing all of the proposed actions you have cited, the EPA has given careful consideration to whether the action, if finalized, would have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations or indigenous peoples as, the EPA is required to do by Executive Order 12898 and its environmental justice policies. Provided below are specific citations to the EPA's findings in this regard with respect to each of the actions with which you have expressed concerns.

a. Can you please explain how your proposal to repeal and replace the Clean Power Plan will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

   I direct your attention to the discussion found at 83 Fed. Reg. 44,797 (Aug. 31, 2018). This includes EPA's evaluation of the requirements of Executive Order 12898, https://www.govinfo.gov/content/pkg/FR-2018-08-31/pdf/2018-18755.pdf.

b. Can you please explain how your proposal to weaken oil and gas methane standards will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

   I direct your attention to the discussion found at 83 Fed. Reg. 52,090 (Oct. 15, 2018). This includes EPA's evaluation of the requirements of Executive Order 12898, https://www.govinfo.gov/content/pkg/FR-2018-10-15/pdf/2018-20961.pdf.

c. Can you please explain how your proposal to delay deadlines for landfill emission guidelines will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

   I direct your attention to the discussion found at 83 Fed. Reg. 54,532 (Oct. 30, 2018), https://www.govinfo.gov/content/pkg/FR-2018-10-30/pdf/2018-23700.pdf.

d. Can you please explain how your proposal to delay deadlines for wood smoke standards will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

Finally, I direct your attention to the discussion found at 83 Fed. Reg. 61,585 (Nov. 30, 2018). This includes EPA's evaluation of the requirements of Executive Order 12898, https://www.govinfo.gov/content/pkg/FR-2018-11-30/pdf/2018-26083.pdf.

67. According to the most recent Regulatory Agenda, EPA is still considering a proposal to rollback key updates from the 2017 Chemical Disaster Rule. Last July, I asked that you withdraw the proposed modifications to the existing safeguards that protect communities, especially low-income communities, indigenous communities, and communities of color, from toxic chemicals stored in industrial facilities across the country. What is particularly troubling is that it appears that you are continuing to move forward with the rollbacks even though EPA's own findings show that there is evidence that risks from Risk Management Programs (RMP) facilities disproportionately fall on minority and low-income neighborhoods.

a. What is the status of this work?

We are carefully reviewing comments on the May 2018 proposal. We will work to make sure the Risk Management Program continues to reduce risk while taking into account homeland security concerns with a focus on what actually works in the field.

b. Given your testimony that you intend to focus on protecting communities suffering most from pollution, will you commit to not move forward with this proposal that will place undue burden on those who are most at risk?

As I testified, I take very seriously our responsibility to protect environmental justice communities. EPA gives careful consideration to whether a proposed action, if finalized, would have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations or indigenous people as the EPA is required to do by Executive Order 12898.

A successful Risk Management Program is a high priority for me. For example, in 2018, EPA entered into its largest-ever settlement in the history of enforcing the RMP, valued at approximately $150 million worth process safety improvements. Enforcement and compliance assurance of the RMP program is a National Compliance Initiative.

EPA is committed to promoting improved coordination between local emergency response planners and the regulated industry to ensure that local plans are effective, and responders are adequately informed.

68. Will you provide a date certain by when you will withdraw from OMB review EPA's proposal to revisit the minimum age requirement under the Worker Protection Standard (WPS) and Certification of Pesticide Applicators (CPA) rules, and the designated representative provision of the WPS, in accordance with your commitment to Senator Carper as set forth in your January 2019 letter?

    As of January 28th, the Office of Management and Budget withdrew the Worker Protection Standard and Certification of Pesticide Applicators rules.

69. Will you provide a date certain by when you will remove the above-referenced actions from EPA's regulatory agenda?

    As of January 28th, the Office of Management and Budget withdrew the Worker Protection Standard and Certification of Pesticide Applicators rules.

70. Will you commit to withdraw EPA's proposal to revisit the application exclusion zone (AEZ) established in the revised Worker Protection Standard?

    a. If not, if and when EPA does revisit the AEZ, will you commit to uphold the law and ensure that any revision to the AEZ will protect workers and other persons from pesticide exposure – including exposure from pesticide drift – as required by FIFRA?

    I will follow through on those specific commitments in my January 2019 letter to Senator Carper. I also commit to ensuring that any future proposed revisions to the AEZ will be consistent with FIFRA and protective of workers and other persons.

71. Will EPA commit to seeking input from the FIFRA Scientific Advisory Panel regarding risks to workers and others associated with pesticide drift, as well as how to ensure that there is no unreasonable adverse effects to workers and bystanders from pesticide drift resulting from pesticide application?

    EPA utilizes the best available science in estimating potential risks to workers and bystanders from pesticide applications. To the extent that new science becomes available that necessitates that the agency reconsider its long-standing assessment methodologies for estimating worker and bystander risks, the agency would likely seek review of these proposed methodologies by the FIFRA Scientific Advisory Panel.

72. Will EPA confirm that it will not propose any rule revising the WPS or CPA without first consulting with the FIFRA Scientific Advisory Panel?

    Section 25 of FIFRA requires EPA to submit proposed regulations to the FIFRA Scientific Advisory Panel for comment before issuing these proposals for public comment. In developing any regulations, EPA will follow these statutorily required procedures.

73. Will EPA commit to considering the dangers and realities associated with requiring additional personal protective equipment (including the risk of heat stress) when conducting pesticide registration reviews?

    When considering whether to require additional personal protective equipment, EPA considers the potential for other risks, including heat stress, during the decision-making process.

Senator Boozman:

74. Acting Administrator Wheeler: There is research taking place in my state and across the United States that would benefit from innovations in plant breeding, such as gene editing. The United States Department of Agriculture (USDA) and Food and Drug Administration (FDA) have been working to quickly develop proposals that will allow these innovations to occur, and grant clarity to my constituents as well as other stakeholders on how gene edited products will be treated. EPA has regulatory oversight over gene edited plants that would produce pesticide-like substances, and yet has not offered any thoughts on the issue thus far. Would you commit EPA to working with FDA and USDA to develop a consistent, interagency approach, in order to grant clarity to affected stakeholders?

    If confirmed, yes, I commit to continue working with FDA and USDA to develop a consistent, interagency approach, in order to grant clarity to affected stakeholders.

75. Acting Administrator Wheeler: As you know, the Vessel Incidental Discharge Act (VIDA) was signed into late last year. This was an important measure that will have a long-lasting impact on commercial vessel operators in my state. It's important to start the implementation process for VIDA as soon as possible. Notwithstanding the shutdown's effect on Agency personnel, can you give the Committee some insight on whether the Agency has begun to address VIDA implementation?

    Prior to the government shutdown, the EPA had begun implementation of the VIDA legislation. Initial discussions with the U.S. Coast Guard were also held, and the agencies is prepared to move forward with implementing the legislation now that the shutdown has ended.

76. Acting Administrator Wheeler: There is scientific evidence showing ethanol blends above 10 percent can harm older vehicles, small engines (such as lawn mowers), boat engines and motorcycles and is incompatible with the existing retail gasoline infrastructure. What will you do to ensure that the annual RFS-mandated volumes protect the current U.S. vehicle fleet and existing infrastructure?

    The Agency has two measures in place to protect against mis-fueling. First, the Clean Air Act section 211(f)(4) "substantially similar" waiver that allows E15 to be put into commerce, includes conditions applicable to fuel manufacturers designed to minimize the possibility of mis-fueling. Second, in conjunction with this section 211(f)(4) waiver, EPA issued the so-called "Mis-fueling Mitigation Rule" under its section 211(c) regulatory authority. This rule extends the 211(f)(4) protections to all entities in the fuel production and delivery chain.

    More information is available at: https://www.epa.gov/gasoline-standards/final-rule-regulation-mitigate-misfueling-vehicles-and-engines-gasoline. In addition, the RFS program also evaluates the broader effects of biofuels. In 20218, EPA released Biofuels and the Environment: The Second Triennial Report to Congress, a report required under the 2007 Energy Independence and Security Act. The report can be found at: https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=IO&dirEntryId=341491.

Senator Braun:

77. During your testimony, you stated that you consider yourself an avid conservationist. I was glad to hear you say that you are working to reduce the timetables of superfund cleanup, particularly in situations where the health of young children may be at risk. I remain interested in working closely with you on your conservation efforts.

    One area in particular where I would like to cooperate regards the agencies work facilitating private conservation projects. Can you provide a few examples of where EPA has been able to step in and aid private citizens in conservation efforts?

    EPA has been actively working with and in support of private and public conservation projects. In August 2018, EPA, the Fourmile Watershed Coalition, and the Four Mile Protection District entered into a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Good Samaritan settlement agreement at the Black Swan Restoration Reach Site in Boulder County, Colorado. The agreement allows these non-liable parties to protect water quality by removing mine tailings from a stream, without fear of incurring Superfund liability. EPA has been pursuing similar agreements with other private parties at other sites.

Also, EPA has a robust Superfund Redevelopment Initiative that actively supports ongoing or potential activities by private and public parties with a focus on future use opportunities, such as by issuing Ready for Reuse site analyses, coordinating remedial actions with reuse plans, promoting long-term stewardship by local private and public partners, and identifying and promoting innovative approaches to conservation and cleanup activities such as through reusable energy sources and coordination with health-based activities. EPA would be happy to work with Congressional staff on any other efforts to aid private citizens in conservation efforts.

78. In November 2016, the EPA published a proposed rule known as the Renewables Enhancement and Growth Support (REGS) Rule. The draft rule proposed a wide range of technical fixes and commented on a number of regulatory issues that biofuel stakeholders have long hoped to address. While the EPA completed the notice and comment process on the REGS rule almost two years ago, the Agency never implemented a final rule.

    a. Can you provide update on the status of the proposed REGS rule and, in particular whether the EPA currently has a timetable for completing this rulemaking?
    b. Is EPA contemplating including various proposals from the REGS rule as a part of other related priority rulemakings such as the RFS reset?

In November 2016, EPA proposed the Renewables Enhancement and Growth Support (REGS) rule and sought public comment on a variety of topics, including on designing an electric RIN-generation program. EPA has not finalized the proposal and continues to evaluate feedback regarding issues like feedstock eligibility, double counting, and verification. At this time, we do not have a timeline to share regarding when further decisions will be made. EPA takes very seriously the interest in this rule and the concerns of the biomass power industry, and I believe we need to resolve these key policy considerations before finalizing the proposal or pursuing alternative regulatory actions as appropriate. More information on the proposal is available at: https://www.epa.gov/renewable-fuel-standard-program/proposed-renewables-enhancement-and-growth-support-regs-rule.

Senator Cardin:

79. In your view, what is the EPA's role in holding the Chesapeake Bay jurisdictions accountable for reducing pollution and meeting target dates, and the role of the Chesapeake Bay Total Maximum Daily Load (TMDL) in that accountability process?

In coordination with the Bay states, the EPA took the lead in the development of the Chesapeake Bay TMDL and the agency's expectation is that Bay states will implement the TMDL in accordance with all applicable legal requirements. We remain committed to working with our state partners to ensure such a result, including reviewing the next phase of watershed implementation planning and evaluating actual reductions in pollutant loading versus targeted reductions. Where the EPA determines that sufficient

progress is not being made, the agency will consider using its federal oversight authorities under the Clean Water Act.

80. As EPA Administrator, will you commit to submitting the Kigali Amendment to the Montreal Protocol to the U.S. Senate for ratification? Please explain why or why not.

    The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to move towards ratification, the President would send the Amendment to the Senate for advice and consent.

81. Under the EPA's Safer Affordable Fuel Efficient (SAFE) Vehicles Rule for Model Years 2021-2026, the EPA's preferred option of "freezing" existing Corporate Average Fuel Economy (CAFE) and tailpipe carbon dioxide standards for passenger cars and light trucks at model year (MY) 2020 levels for both programs through 2026 will increase U.S. fuel consumption and will result in significant increases in emissions of nitrogen oxide (NOx). The Chesapeake Bay TMDL incorporates air deposition load allocations that account for the emission reductions anticipated by the Chesapeake Bay watershed jurisdictions and other states in the larger Chesapeake Bay airshed. Can the EPA account for the impact of the increase in emissions on the expected decreases in nitrogen deposition in the Chesapeake Bay that are reflected in the Chesapeake Bay TMDL?

    The proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule and its accompanying documents evaluate the potential impacts, including on non-greenhouse gas pollutants like nitrogen oxides, under a range of alternatives. The preliminary regulatory impact analysis, for example, evaluated potential effects for model years through 2029 for greenhouse gases, criteria pollutants (including carbon monoxide, volatile organic compounds, nitrogen oxides, sulfur dioxide, and particulate matter), fuel consumption, vehicle miles traveled, and fatalities. More information is available at Docket No. EPA-HQ-OAR-2018-0283. To my knowledge, an analysis of the proposal's specific impacts on Chesapeake Bay nitrogen deposition has not been conducted.

82. Emissions will also increase under the EPA's proposed Affordable Clean Energy (ACE) Rule that proposes to alter how facilities calculate emissions increases that trigger New Source Review. Please provide an estimate for the Chesapeake Bay airshed of the difference in NOx reductions that were expected to be achieved by implementing the existing New Source Review Program under the ACE Rule versus the Clean Power Plan.

    We would note that the Clean Power Plan (CPP) was stayed by the Supreme Court and thus never achieved any emission reductions. Taking this into account, relative to not taking any regulatory action the proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide (12 to 27 million tons), sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000

to 15,000 tons). To my knowledge, an analysis of the proposal's specific improvements to Chesapeake Bay nitrogen deposition has not been conducted. To my knowledge, an analysis of the specific impacts on Chesapeake Bay NOx reductions has not been conducted.

83. According to the Environmental Integrity Project's report, "Undermining Protections for Wetlands and Streams: What the Trump Administration's Proposed Rollback of Wetlands Regulations Means for the Chesapeake Bay Region" (December 12, 2018), which uses laser mapping data collected by federal researchers and the University of Maryland, there are 34,560 acres of scattered wetlands called "Delmarva potholes" on the Delmarva Peninsula that would be no longer be subject to federal protections under the proposed revised definition of "waters of the United States." These wetlands help reduce agricultural runoff pollution into the Chesapeake Bay. Do you agree that removing federal protections could mean less flood protection for infrastructure on Maryland's Eastern Shore and more pollution flowing into the Chesapeake Bay and its tributaries?

The EPA remains committed to the protection of navigable waters consistent with applicable legal authorities while recognizing the important role that states like Maryland play in the protection and management of their resources. For example, I understand that Maryland will be addressing pollutant reduction strategies for the Chesapeake Bay in its upcoming Phase III watershed implementation plan, which could include appropriate management strategies for Delmarva potholes and other important aquatic features in Maryland.

84. During the hearing, there was disagreement about whether California should be able to set its own standards for fuel economy and tailpipe carbon dioxide emissions from new passenger cars and light trucks. Please state how you will protect the ability of states that have adopted California's new vehicle emissions standards under section 177 of the Clean Air Act, including Maryland, to maintain their commitments to air quality?

EPA and the National Highway Traffic Safety Administration (NHTSA) have jointly proposed a rulemaking for greenhouse gas (GHG) emission and fuel economy standards, respectively, affecting light-duty vehicles for the 2021 through 2026 model years. EPA also proposed to revoke the waiver of preemption currently in place which allowed California (and a number of other states that have adopted the California standards) to adopt their own GHG standards and the zero-emission vehicle program. The proposed legal basis for withdrawing the California Waiver is described in the notice of proposed rulemaking and accompanying documents, available at: Docket No. EPA-HQ-OAR-2018-0283. EPA received a wide range of public comments on the proposal and is carefully reviewing those comments. I am committed to working with California and Section 177 states as EPA and NHTSA determine a path forward consistent with the Clean Air Act and the goal of one national program.

85. Maryland state officials asked the EPA to reconsider its decision not to impose tougher pollution standards on certain Midwestern power plants, despite documentation that their emissions contribute significantly to Maryland's ground-level ozone pollution problem, about two-thirds of which is estimated to come from out-of-state sources, and that emission controls are already installed. Will you work with the State of Maryland in order to ensure that federal health-based air quality standards protect downwind states?

    I will work with the State of Maryland to ensure that EPA standards protect downwind states.

86. Will you work with Congress to finalize a ban on the organophosphate insecticide chlorpyrifos? Please explain your position.

    EPA is always willing to provide our scientific expertise to Congress. As required by FIFRA, chlorpyrifos is undergoing registration review. EPA is committed to fully evaluating this pesticide using the best available science.

Senator Duckworth:

87. I am extremely concerned that U.S. Environmental Protection Agency (EPA) is failing to meet its statutory duties when issuing and reviewing permits. I am also concerned that EPA political staff are failing to adequately address concerns raised by career staff regarding impacts of industrial pollution on the Great Lakes.

    EPA Region 5 reportedly provided a Foxconn facility, to be located in South-east Wisconsin, latitude to draw millions of gallons of water from Lake Michigan and to negatively impact adjacent wetlands. Similarly, EPA career staff have raised concerns regarding the Polymet Mine's water permit application in Minnesota, which remain unaddressed. Public reports indicate that EPA Region 5 staff prepared comments raising concerns with Polymet's water pollution permit application, but were discouraged by political appointees from sharing their concerns with the Minnesota Pollution Control Agency (MPCA).

    Will you commit to immediately releasing comments or concerns raised by EPA staff regarding the Foxconn project and the Polymet Mine application?

    The EPA followed standard processes for reviewing the Foxconn and Polymet projects, including internal deliberations regarding the facts associated with and the application of legal requirements to those projects. The EPA will initiate a search for responsive documents and update the Senator's office on the status of that search as soon as feasible.

    Regarding the Polymet project and associated permit, the EPA staff worked closely with their counterparts at MPCA to address the EPA comments and questions related to the pre-proposed NPDES permit. Prior to MPCAs final permit decision, several

meetings and conversations occurred between career EPA and MPCA staff. All concerns, observations or questions from the EPA Region 5 staff, regarding the Polymet NPDES permit, were communicated to MPCA and helped inform the state's final decision. Ultimately, MPCA made the decision to issue the permit and the EPA staff and regional leadership decided not to issue formal comments on the final permit.

88. The Renewable Fuel Standard (RFS) directs EPA to set annual Renewable Volume Obligation (RVO) levels. These blending mandates increase each year until 2022. However, under the Trump Administration, EPA has provided dozens of "hardship" waivers, reducing the mandate by billions of gallons of renewable fuels. EPA's abuse of these hardship waivers have financially harmed farmers in Illinois while lining the pockets of our Nation's most profitable oil companies. Last year, EPA proposed a "reset" regulation for the RFS triggered by its abuse of these waivers.

    What is your timeline for the release, public comment period and final rule of the reset regulation? How will EPA determine future RVO target levels? Do you expect EPA to reduce RVO target levels for conventional, advanced or cellulosic biofuels? Please identify which categories of biofuel will be impacted by the reset regulation.

    The statutory predicate for EPA to conduct a "reset" rulemaking has now been triggered pursuant to the agency's use of its volume waiver authority under Clean Air Act section 211(o)(7). It is important to note that this waiver authority is separate and distinct from the small refinery waiver authority under section 211(o)(9), and EPA's exercise of the latter authority did not factor in the statutory triggering of "reset" pursuant to section 211(o)(7)(F).

    The agency plans to propose a "reset" rule in 2019. Because of the nested nature of the biofuel categories, each category will be impacted by the reset regulation. EPA will still be required to do a separate Renewable Volume Obligation (RVO) each year.

    We will keep you informed of the progression of the reset proposal and provide further details once the proposal is complete. In addition, after the proposal is complete and published in the Federal Register, all interested parties will have the opportunity to submit comments or additional information to the agency regarding the proposal.

89. Part of EPA's obligation under existing law is to identify, assess and register new forms of renewable fuel for the Renewable Identification Numbers (RIN) Market. However, EPA appears to have a multi-year backlog for congressionally-approved registration and pathway applications.

    In fiscal year 2017, EPA approved 14 new pathways. In 2018, EPA approved 11. EPA works hard to continue to improve the pathways applications process and make decisions on a timely basis. The agency has a range of proposals under development that will provide additional clarity and streamline the pathways process for those

feedstocks, including some that will be proposed in the "reset" rule. EPA expects to propose those rules in early 2019. We will keep you updated on the progression of these pathways improvements.

90. How many registrations and pathway applications are currently pending under the RFS? How many registrations and pathway applications did EPA approve in fiscal years 2017 and 2018? What is delaying the approval of applications and how will you address this backlog?

In fiscal year 2017, EPA approved 14 new pathways. In 2018, EPA approved 11. Currently, there are 21 pending pathway applications. EPA works hard to continue to improve the pathways applications process and make decisions on a timely basis. The agency has a range of proposals under development that will provide additional clarity and streamline the pathways process for those feedstocks, including some that will be proposed in the "reset" rule. EPA expects to propose those rules in 2019. We will keep you updated on the progression of these pathways improvements.

Senator Ernst:

91. Under the Coordinated Framework for the Regulation of Biotechnology, the Department of Agriculture, the Food and Drug Administration, and the Environmental Protection Agency have regulatory authority over the products of plant biotechnology. EPA's regulatory authority falls under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and is specific to "plant incorporated protectants," or "PIPs." New breeding methods such as gene editing allow plant breeders to work within a plant's gene pool to make changes that could have occurred naturally or through conventional breeding, albeit more precisely and efficiently.

    USDA recognized this in Secretary Perdue's March 2018 policy statement on plant breeding innovation. This includes methods such as gene editing that will be increasingly used by plant breeders to produce new plant varieties that are indistinguishable from those that could be developed through traditional breeding methods. Under FIFRA, EPA has the statutory authority to clarify the existing exemption for PIPs derived through conventional breeding includes those applications of plant breeding innovation, such as gene editing that could be achieved through conventional breeding.

    a. Will EPA commit to coordinating with USDA and FDA to ensure a clear and consistent regulatory pathway for products of plant breeding innovation, such as gene editing, in a way that does not stifle innovation in U.S. agriculture?

If confirmed, yes, I commit that EPA will continue to coordinate with USDA and FDA to ensure a clear and consistent regulatory pathway for products of plant breeding innovation, such as gene editing, in a way that does not stifle innovation in U.S. agriculture.

92. In several recent meetings with me, you committed to proposing a rule that would provide relief to the glider truck industry. When do you expect this rule to be proposed? Please provide an approximate date.

We continue our work to formulate an effective solution. We are focusing on establishing an emission standard that is not predicated on the industry going out of business or substantially reducing economic growth potential while also using the appropriate source of authority, such as authority for remanufactured engines under the Clean Air Act. We are also assessing the most appropriate means for analyzing costs and benefits associated with a future rulemaking, including comparing remanufactured glider trucks to used trucks as gliders tend to be bought in lieu of used and not new tucks. While we do not yet have a firm schedule for completing a rule, we plan to move ahead as expeditiously as practicable.

93. At your confirmation hearing, you indicated that lower RIN prices did not necessarily mean that there is less "economic hardship" for small refineries, and that RIN prices were just "one factor" in determining whether or not a refinery faces a "disproportionate economic hardship" so as to justify receiving an SRE.

    a. Besides purchasing RINs, what "other factors" contribute to obligated parties' costs in complying with the RFS?
    b. Is there a scenario where lower RIN prices do not alleviate obligated parties' "economic hardship" under the RFS?

When we consider the economic viability of a small refinery that has applied for a small refinery exemption, we look at a wide range of factors that are laid out two Department of Energy (DOE) studies. As the 2011 report states, "Disproportionate impacts consist of Disproportionate Structural and Disproportionate Economic measures." The factors considered under Disproportionate structural impact include:

- **Access to capital/credit.**
- **Existence of other business lines besides refining and marketing.**
- **Local market acceptance of renewables.**
- **Percentage of diesel Production.**
- **Application of state regulations.**

The factors considered under disproportionate economic impact include:

- **Relative refining margin measure.**
- **Renewable fuel blending (% of production).**
- **Presence in a niche market.**
- **Whether RINs are a net revenue or cost.**

For additional information and the full report, please refer to https://www.epa.gov/sites/production/files/2016-12/documents/small-refinery-exempt-study.pdf.

94. At your confirmation hearing, you stated that it is not viable to "reallocate" biofuel volumes that are waived as part of the RFS's SRE provision to other obligated parties. Beyond resorting to reallocation, are there any other options at EPA's disposal to mitigate the negative effect that SREs have on biofuel demand? For example, in setting Renewable Volume Obligations (RVOs), does EPA have authority to:

    a. Reduce the use of the cellulosic waiver authority to intentionally draw down the carryover RIN bank?
    b. Allow for the partial backfilling of missing cellulosic volumes with non-cellulosic advanced biofuels to reflect the fact that hardship waivers will be more frequently granted?

Your question ultimately goes to the factors that we consider in setting annual RVOs. The factors you cite – *i.e.*, the number of carry-over RINs and the availability of advanced biofuels – are among the many factors we consider each year when we propose and promulgate the RVOs.

95. In responding to a question on small refinery waivers, you noted that geography played a role in awarding these waivers. Where in the small refinery waiver section of the Renewable Fuel Standard does it state that geographic location is a factor that can be considered, or determinative, in the decision to issue a small refinery exemption?

The statute is not specific as to the full range of factors we can or should consider in assessing small refinery exemption applications. We have long held the view that the effect of geographic locations is a relevant consideration.

96. Well into 2017 both the Obama and Trump Administration's readily reviewed and approved facility registrations to produce cellulosic ethanol from corn kernel fiber through a peer-reviewed process. However, since November of 2017 several new registrations for cellulosic production utilizing corn kernel fiber technology have been delayed indefinitely for approval, since EPA has decided to not accept peer-reviewed methods as provided in statute by the Renewable Fuel Standard for approving registrations, even when the registrations use the same methods as the Trump Administration had already accepted.

    The delays caused by EPA has created unnecessary uncertainty for the ethanol industry, technology providers, and their investors. As a result, tens-of-millions of gallons of cellulosic biofuels have not been produced, diminishing the demand for corn at a time when our producers are facing low commodity prices. This hits Iowa particularly hard where more than 15 ethanol plants are already making cellulosic ethanol derived from

corn kernel fiber in their facilities, but because of the delays in registration they are unable to receive the D3 cellulosic RIN they are entitled to under the law. As a result of losing out on the D3 RIN, plants in my state have lost out on up to $65 million in economic value that would greatly benefit our rural communities and farmers during this time of uncertainty for the agricultural industry.

a. Will the EPA begin reviewing and approving new registration applications for cellulosic ethanol derived from corn kernel fiber under the existing peer-reviewed processes used prior to November 2017?
b. What steps will the agency take to restart the review process of these registrations after a 15-month delay?

We continue to actively consider applications to generate cellulosic RINs through the conversion of corn kernel fiber. The analytical issues are particularly difficult to resolve. We believe we are making progress and hope to soon resolve the outstanding issues.

Senator Gillibrand

97. PFAS pollution has been linked to very serious health problems. Drinking water contamination from these chemicals in the village of Hoosick Falls, New York, and at least 172 other communities across the county, has been linked to a number of cases of cancer and thyroid disease. The Department of Health and Human Service's PFAS study released in June of last year revealed that the minimal risk level for human exposure to two types of PFAS chemicals, PFOA and PFOS, should be seven to ten times lower than the level previously recommended as safe by the EPA. In the EPA's new PFAS management plan submitted to the Office of Management and Budget, what level of human exposure to PFAS does the EPA recommend as safe?

The EPA will continue to work with our federal, state, tribal, and local partners on response actions and research into the health impacts of PFAS substances. The EPA will consider any information, including the HHS PFAS study, that may inform our approach to PFOA, PFOS, and other PFAS. The EPA's PFAS action plan will outline the agency's approach to identifying and understanding PFAS exposures and addressing the PFAS challenge. The action plan is currently undergoing interagency review. The EPA will be prepared to discuss the contents of the plan as soon as interagency review is complete, and the plan is public. The Agency continues to provide technical assistance to the state of New York, which has taken the lead role in addressing the PFAS issues in Hoosick Falls.

98. In the EPA's PFAS Management plan, what cleanup standard has been put in place to ensure the effective and timely remediation of PFAS chemicals in communities in New York and across the country?

The EPA's PFAS action plan will outline the agency's approach to identifying and understanding PFAS exposures and addressing the PFAS challenge. The action plan is currently undergoing interagency review. The EPA will be prepared to discuss the contents of the plan as soon as interagency review is complete, and the plan is public.

99. If confirmed, will you commit to increase transparency about PFAS chemicals by adding those chemicals to the Toxic Release Inventory?

EPA is evaluating all of its statutory authorities to increase transparency about PFAS chemicals.

100. When will the EPA begin the process of establishing an enforceable standard for PFAS under the Safe Drinking Water Act?

The EPA is currently evaluating PFOA and PFOS under the Safe Drinking Water Act (SDWA) regulatory determination process, which is a critical next step in determining whether to establish a National Primary Drinking Water Regulation. This process builds on previous efforts the EPA has performed to evaluate and address PFOA and PFOS, including for example publishing health advisories for these chemicals, adding PFOA and PFOS as priority contaminants to the SDWA Contaminant Candidate List for regulatory consideration, and collecting monitoring data for six PFAS compounds, including PFOA and PFOS, from drinking water systems across the country as part of the third Unregulated Contaminant Monitoring Rule.

Under the SDWA, the EPA must consider three criteria when making a determination to regulate a contaminant:

- **The contaminant may have an adverse effect on the health of persons.**
- **The contaminant is known to occur or there is a high chance that the contaminant will occur in public water systems often enough and at levels of public health concern.**
- **In the sole judgment of the Administrator, regulation of the contaminant presents a meaningful opportunity for health risk reductions for persons served by public water systems.**

If the EPA makes a determination to regulate PFOA and PFOS, the SDWA requires that, prior to issuing a drinking water standard, the agency must undertake a number of actions, including developing a health risk reduction and cost analysis, consulting with the National Drinking Water Advisory Council, seeking recommendations from the Science Advisory Board, and publishing a proposed regulation for review and comment. The EPA is committed to performing all mandatory actions under the SDWA as it continues its regulatory evaluation.

101. It is my understanding that the EPA is close to making a decision on whether to issue a certificate of completion for the remedial actions carried out by General Electric under its consent decree for the Hudson River Superfund site. I am very concerned that the EPA may issue the certificate of completion despite the EPA's own acknowledgement in its draft 5-year review report that the remedy is not yet protective of human health and the environment. In December, the New York State Department of Environmental Conservation (NYSDEC) released a report based on extensive sampling, and found that in many instances, there has not been a significant decline in PCB concentrations in the Hudson River and its ecosystems.

The National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and New York State—the three Natural Resource Trustees for the Hudson River—all have stated publicly that the cleanup is incomplete and that it will take decades longer than projected by the EPA for the river to meet the numeric goals of the 2002 Record of Decision. Will you hold off on issuing the Certificate of Completion until the numeric goals of the Record of Decision have been met and the remedy is protective of human health and the environment?

Region 2 was glad to provide a detailed briefing on the status of the Hudson River PCBs Superfund site provided to your staff on December 21, 2018. That briefing focused, in particular, on General Electric's request for a "Certification of Completion of the Remedial Action," and EPA's second Five-Year Review (FYR) report for the site.

Prior to the shutdown, EPA had projected that it would be in a position to make a decision regarding General Electric's request for the certification early in 2019. EPA also projected that early in 2019 it would be in a position to finalize the second FYR report.

It is important to note that these decisions were technically to have been made a year ago but were set aside so that EPA could join the New York State Department of Environmental Conservation (NYSDEC) in a joint, rigorous review of all sediment and fish data collected by both agencies.

It is also important to note that the Five-Year Review and any issuance of the Certificate of Completion of Remedial Action exist as separate constructs, each responding to a distinct set of conditions/considerations. Effectively;

1. **The purpose of the Five-Year Review is to determine whether the remedy selected for the site is protective of human health and the environment.**

2. **The purpose of the issuance of the Certification of Completion of the Remedial Action is to confirm the completion of EPA-defined tasks related to the execution of the dredging remedy called for in the 2006 Consent Decree. This action is not dependent upon a determination of protectiveness in the Five-Year Review.**

A more detailed treatment of both the Five-Year Review and the "Certification of Completion of the Remedial Action" is provided below.

A. <u>Five-Year Review</u>

In May 2017, EPA took the unusual additional step of releasing for public comment a draft of the second FYR Report. EPA conducted three public meetings during the 90-day comment period. The 1000-page draft report found that the remedy is not *yet* protective of human health and the environment; but that it is expected to be so after the natural attenuation element of the remedy occurs over a period of more than five decades, as projected in the Record of Decision (ROD) issued in 2002. The draft FYR indicated that PCB concentrations in fish in the Upper Hudson were declining but had not reached protective levels. Because dredging ended in late 2015, less than two years earlier, only limited post-dredging data was available for the draft FYR, though the fish, sediment and water data available at that time were consistent with the 2002 ROD projections.

EPA received over two thousand comments on the draft second FYR Report and has been carefully reviewing these before finalizing the report. The National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and New York State recommended that EPA conclude the remedy is *not* protective, arguing the remedy did not go far enough to remove PCBs from the river, and that the time for fish recovery will be longer than anticipated by the 2002 ROD.

In advance of finalizing the second FYR Report, EPA has undertaken an in-depth and intensive evaluation of post-dredging sediment and fish tissue data that had become available since the draft report. In collaboration with the NYSDEC, EPA in 2018 conducted an extensive technical review of the results from some 1,200 sediment samples taken by NYSDEC in 2017, along with the results from hundreds of sediment samples taken by GE under EPA's direction in 2016. The review also considered post-dredging fish tissue data. EPA and NYSDEC senior leadership and technical staff met several times during 2018 to discuss these data and their interpretation. A detailed Technical Memorandum setting out the results of this collaborative, in-depth review will be included with the issuance of the final FYR Report.

B. <u>Certification of Completion of the Remedial Action.</u>

This matter is separate from the FYR, with a different purpose and subject to different legal criteria. Under the terms of the 2006 judicial Consent Decree (CD) between EPA and General Electric, GE has requested that EPA issue a "Certification of Completion of the Remedial Action" (COC) which would confirm that GE performed all "Remedial Action" activities – i.e., the dredging,

capping, habitat restoration, and deconstruction/decontamination of the sediment processing facility – required of the company under the CD.

The "Certification of Completion of the Remedial Action" is one of three certifications that GE may request under the CD. These are: (1) the "Certification of Completion of Phase 1 Field Activities," which was provided to GE in 2012; (2) the "Certification of Completion of the Remedial Action" or COC, which GE requested in early 2017 and which is now under consideration by EPA; and (3) the "Certification of Completion of the Work," which certifies that all work required under the CD has been completed, and which will not be available to GE for many decades.

The term "Remedial Action" is explicitly defined in the CD as *not* including the operation, maintenance and monitoring (OM&M) phase that follows the dredging. The remedy selected in the 2002 ROD for the Hudson River PCBs Superfund site was designed to address the most highly contaminated areas in the Upper Hudson River through active remediation – dredging and, where necessary, capping – followed by allowing the river to recover naturally through "monitored natural attenuation" (also called "monitored natural recovery") that is expected to continue to reduce PCB levels in surface sediment over time throughout the river. The 2002 ROD set a remediation goal of 0.05 mg/kg of PCBs in the fish (a level that would allow people to eat fish from the river once a week) and projected that meeting that goal will require more than five decades of natural recovery after the completion of the dredging. The active dredging work, and the decades-long natural attenuation or recovery process, are both explicit and essential components of the selected remedy.

As previously noted, the term "Remedial Action" as used in the CD specifically excludes the OM&M period, when much of the natural attenuation is expected to occur. The "Remedial Action," as that term is used in the CD, consists only of the dredging itself and the other construction work done by GE under the CD.

The CD states: "If EPA concludes … that the Remedial Action has been performed in accordance with this Consent Decree, EPA will so certify in writing to [GE]." Pursuant to this provision of the CD, in early Calendar Year 2017 GE requested that EPA issue the COC. Under the CD, EPA was to have responded to that request within one year. EPA has delayed its response to GE's request for the COC until EPA finalizes its second FYR Report, which includes the above-referenced assessment of sediment and fish data carried out in collaboration with NYSDEC.

It is important to note that the CD includes "reopener" provisions under which EPA can require GE to perform additional remedial work, if specified conditions are met. The reopener can be triggered at any time (whether or not the Certification of Completion of the Remedial Action has been issued) if EPA receives new information which, along with other information (including

previous data and analyses), causes EPA to determine that the remedy will not be protective of human health and the environment, and that specific additional work will achieve such protectiveness. EPA receives new information on a regular, recurring basis as new fish tissue, water quality and sediment data are gathered. EPA has long stated that it will take up to eight or more years of post-dredging fish tissue data to reach a scientifically reliable conclusion about the rate of recovery of the fish.

In conclusion, work on both EPA's response to GE's request for the certification, and the second FYR report, was suspended during the government shutdown. EPA will now resume work on these matters and make determinations on each.

102. Will you meet with relevant local stakeholders before you decide whether to issue the Certificate of Completion to have a more complete discussion of this issue?

EPA headquarters and Region 2 officials have had multiple meetings with concerned local stakeholders over the past several years. Region 2 Administrator Lopez and staff have also met and spoken frequently about this issue with NYSDEC Commissioner Basil Seggos (and his staff) as well as with representatives of the New York State Attorney General's office. Additionally, meetings and/or telephone conferences have been held with NOAA, the US Fish & Wildlife Service, and interested members of Congress. EPA representatives have met regularly with the Community Advisory Group for the Hudson River PCBs Superfund site, which includes members from a number of local stakeholder organizations. EPA does not currently anticipate holding additional meetings with local stakeholders prior to reaching a decision on GE's request for the "Certification of Completion of the Remedial Action" as required by the 2006 judicial Consent Decree.

103. Have you personally read the Fourth National Climate Assessment?

Yes, I have read the Fourth National Climate Assessment.

104. To date, how many briefings or discussions have you had with EPA employees on the topic of the Fourth National Climate Assessment since it was released in November?

I have had one formal briefing by the career EPA staff on the Fourth Assessment and requested additional briefings which have not taken place yet due to the shutdown. I had a couple of informal discussions regarding the assessment around the time of my Washington Post interview.

105. Have you been personally briefed by the EPA scientists and career staff who participated in the drafting and preparation of the Fourth National Climate Assessment?

Yes, I had one formal briefing by the career EPA employees who participated in the preparation of the Fourth Assessment.

106. Please list all individuals not currently employed by the EPA that you have discussed the Fourth National Climate Assessment with, including but not limited to, members of the White House staff and other Administration officials, lobbyists, and business executives.

As part of a regularly scheduled phone call with the National Economic Council, and in a couple White House meetings, I recall this issue being raised. I do not recall having discussed the Assessment with anyone and in particular, I do not recall having discussed it with any officials at the Office of Science and Technology Policy, or any White House component or working group which may been involved in the preparation of the report. Finally, I do not recall having discussed it with any lobbyists or business executives. I have been asked about the Assessment by reporters.

107. In your opinion, what are the key actionable findings for the EPA in the Fourth National Climate Assessment?

I still have additional briefings from my career staff planned which have not yet taken place, so I am reserving judgment on actionable findings. One of the key takeaways in my opinion is that the press did not fully understand the various scenarios and I believe more work needs to be done communicating the findings in assessments such as these in the future.

a. How do you intend to incorporate those findings into EPA you decision making should you be confirmed?

I have prioritized risk communication in all that we do at the Agency and I believe the government needs to be more proactive in explaining findings from such reports since the media did a poor job reporting on the assessment. I am sure that there will be other findings as we continue to examine the assessment.

108. As Acting Administrator, what specific actions have you taken to date in response to the Fourth National Climate Assessment?

I still have additional briefings from my career staff planned which have not yet taken place, so I am reserving judgment on actionable findings.

109. Is protecting the lives of pregnant women and children from mercury poisoning is an "appropriate and necessary" role for the EPA?

Of course, I care about protecting the lives of pregnant women and children from the harmful effects of all forms of pollution. Clean Air Act Section 112(n)(1)(A) specifies the finding that must be made to authorize EPA to regulate power plants under Section 112. Please see the NPRM signed on December 27, 2018 for our proposed interpretation of Section 112(n)(1)(A), including the term "appropriate and necessary."

110. How is EPA calculating the benefits of protecting the health of pregnant women and children from mercury poisoning in its cost-benefit analysis for the proposed changes to Mercury and Air Toxics Standards?

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind the emission standards to which those units are currently subject. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794.

111. Do avoided harms associated with a rulemaking, including reduced childhood development delays, need to be monetized to count as part of a cost-benefit analysis?

EPA regularly incorporates avoided harms, including non-monetized effects, in its regulatory actions in a manner consistent with statutory requirements.

112. In evaluating the costs of a rulemaking, do you believe that externality costs – for example costs to society and public health costs from impacts of a pollutant -- should be considered in addition to the financial costs of compliance?

EPA often evaluates externalities, including societal and public health impacts, in its regulatory actions in a manner consistent with statutory requirements.

113. Will you support continued funding for the EPA's geographic programs, including the Long Island Sound Study and Great Lakes Restoration Initiative?

I recognize the importance of these large regional water bodies to the neighboring communities and the nation. EPA's FY 2019 budget request focuses and prioritizes funding on core programs with a national scope and unique federal role and EPA has a number of core programs that address environmental issues in these watersheds. I also understand and support the role the EPA can play as a convener in certain regional

multi-state programs such as the Great Lakes, at the same time recognizing the importance of the local communities and states in leveraging resources and ensuring progress. The Long Island Sound Study also addresses an important natural resource. We will work closely with the states to make continued progress within the levels appropriated by Congress.

114. The interstate transport of ozone and particulate matter is a serious environmental and public health problem in New York. Cross-state air pollution contributes to death and illness in our state and damages our natural resources. Such pollution generated in upwind states also interferes with New York's ability to meet its legal obligation to attain the national standards set by EPA.

    a. What impacts will the Clean Air Act regulatory actions taken by the EPA during the Trump Administration have on ozone and cross-state air pollution on downwind states like New York?
    b. What is the scientific basis for your response to (a)?

The Clean Air Act's "good neighbor" provision requires EPA and states to address interstate transport of air pollution that affects downwind states' ability to attain and maintain National Ambient Air Quality Standards (NAAQS). Specifically, Clean Air Act section 110(a)(2)(D)(i)(I) requires each state in its State Implementation Plan (SIP) to prohibit emissions that will contribute significantly to nonattainment of a NAAQS, or interfere with maintenance of a NAAQS, in a downwind state.

EPA's Cross-State Air Pollution Rule (CSAPR), the CSAPR Update, and the CSAPR Close-out (finalized 12/6/18) fully address states' good neighbor obligations for the 1997 and 2008 ozone NAAQS and the 1997 and 2006 PM2.5 NAAQS. For power plants covered by this program for cross-border ozone, nitrogen oxide emissions dropped by over 20 percent - roughly 80,000 tons - just since the 2016 ozone season.

The recently finalized CSAPR Close-out rule determined that emission reductions under the CSAPR Update will sufficiently control transported ozone pollution with respect to the 2008 ozone NAAQS in states covered by the Update. EPA is actively working with states to provide the technical tools and information to facilitate "good neighbor" state plans addressing interstate transport under the 2015 ozone NAAQS. More information on EPA's efforts to address interstate ozone transport is available at: https://www.epa.gov/interstate-air-pollution-transport.

In March 2018, EPA received a petition submitted by the state of New York under section 126 of the Clean Air Act. The petition requests that the EPA make a finding that emissions from certain sources in nine states (Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia) contribute significantly to nonattainment of, or interfere with maintenance of the 2008 and 2015 ozone national ambient air quality standards in New York. EPA will work to respond to the petition

and more information is available at: https://www.epa.gov/ground-level-ozone-pollution/new-york-section-126-petition-may-2018.

Senator Markey:

115. As part of the recent revamp of the Toxic Substances Control Act (TSCA), the EPA received the specific authority to address high-risk uses of three extremely dangerous chemicals: trichloroethylene (TCE), methylene chloride, and N-methyl pyrrolidone (NMP). The Obama Administration proposed to ban several uses of these chemicals outright in 2016, but neither you nor former Administrator Pruitt have put a single one of these bans into effect.

    a. Yes or no, does methylene chloride pose a danger to workers, like painters and builders, who handle that chemical?
    b. Can you commit to ensuring that everyone is protected from this deadly chemical by finalizing the exact ban proposed by the EPA two whole years ago—which has yet to be done, even after Scott Pruitt publicly promised to do so?

Yes, under certain circumstances, methylene chloride not only can pose danger, but has also caused worker deaths. The EPA submitted a final rule for methylene chloride paint and coating removal to OMB for interagency review on December 21, 2018, prior to the lapse in appropriations. Questions regarding the scope, implementation, and timing of the final rule and associated EPA actions will depend on the outcome of the interagency review process.

116. The EPA Integrated Risk Information System (IRIS) program completed revisions of its formaldehyde assessment in the fall of 2017. In reports accompanying the Consolidated Appropriations Act of 2017, both chambers of Congress directed that the agency contract with the National Academy of Sciences (NAS) to conduct an external peer review of the revised IRIS formaldehyde assessment. Accordingly, EPA has already provided $1 million to the NAS for this purpose. The January 2018 EPA IRIS report to Congress indicated that "IRIS plans to deliver an External Review of its Formaldehyde Assessment for public comment and peer review in FY18." I have repeatedly inquired about the status of the IRIS formaldehyde assessment and repeatedly requested that EPA advance the assessment to finalization—a process that involves intra- and inter-agency review, external peer review by the NAS, and public comment.

    a. Will the IRIS program continue to work on and finalize its formaldehyde assessment? If not, why not?

    Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent

Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

Additionally, EPA regulates formaldehyde emissions as a hazardous air pollutant under the Clean Air Act, specifically regulates emission from composite wood products, and remains part of the inventory emissions under regular EPA National-Scale Air Toxics Assessments which EPA uses to model nationwide air concentrations and exposures and provides estimates of the potential cancer risk from breathing an air toxicant.

b. Please provide the timeline and agenda items that will allow EPA to complete the remaining steps in the review process for the revised IRIS formaldehyde assessment.
   i. When will the agency initiate the intra-agency review process?

      Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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   ii. When will the agency initiate the inter-agency review process?

      Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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iii. When will the agency release the revised assessment for public comment and peer review?

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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iv. When will EPA finalize the IRIS formaldehyde assessment?

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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which EPA uses to model nationwide air concentrations and exposures and provides estimates of the potential cancer risk from breathing an air toxicant.

c. Will you commit to providing the revised IRIS formaldehyde assessment to NAS for peer review by no later than the end of calendar year 2019?

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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d. Please explain why formaldehyde is absent from the 2018 IRIS Program Outlook.

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

Additionally, EPA regulates formaldehyde emissions as a hazardous air pollutant under the Clean Air Act, specifically regulates emission from composite wood products, and remains part of the inventory emissions under regular EPA National-Scale Air Toxics Assessments which EPA uses to model nationwide air concentrations and exposures and provides estimates of the potential cancer risk from breathing an air toxicant.

e. Please explain the process used to develop the 2018 IRIS Program Outlook, from first inception to completion. In your response, please identify the program and regional offices, including the names of specific individuals, consulted or otherwise involved. Please also identify any other organizations and specific individuals consulted or otherwise involved.

In August 2018, I asked that the IRIS prioritization be reaffirmed across EPA. All agency programs responded to this request though OCSPP and OAR did not provide a list of priorities. Regional responses were coordinated through the programs.

An additional prioritization exercise concluded in late November 2018 and resulted in the current IRIS Outlook posted to the IRIS website in December 2018.

117. To what extent, when, and in what capacity was David Dunlap, Deputy Assistant Administrator for Research and Development in EPA's Office of Research and Development, involved in the development of the 2018 IRIS Program Outlook? Please be very specific.

On August 10, 2018, on my behalf, Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, ORD, delivered a memorandum to the Assistant Administrators and their deputies. As laid out in this memo, the programs were asked to identify priorities for future IRIS assessments as part of the Agency's continuing effort to ensure IRIS assessment activities are focused on the most important Agency needs. Additionally, these priorities needed to be verified by program leadership and be accompanied by the signature of each program's Assistant Administrator or acting Assistant Administrator. Each program was given complete latitude to select its own priorities.

Before his departure from the Agency, Dr. Richard Yamada had been responsible for driving the programs towards a final list of priority chemicals responsive to this request. Mr. Dunlap was appointed Deputy Assistant Administrator on September 30, 2018 replacing Dr. Yamada. Mr. Dunlap inherited Dr. Yamada's responsibility with respect to this memo. Shortly after his arrival, Mr. Dunlap urged the Assistant Administrators to complete the task and to follow the directions given in the original, August memo, including the need for the appropriate signatures.

After these priorities with proper signatures were received, a summary memo was sent on December 4, 2018, announcing the seven chemicals for priority IRIS assessment (PFAS counts as one but covers five substances). The list of seven chemicals was then announced to the public via the Agency's website.

118. Mr. Wheeler, you wrote in your testimony that "[t]here is no more important responsibility than protecting human health and the environment."

    a. Would the proposed Mercury and Air Toxics Standards (MATS) rule you proposed result in less mercury being emitted from power plants, yes or no?

Because EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject, the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review, were it to be finalized, whould have no effect on mercury emissions beyond the effect of the MATS standards themselves.

119. The Harvard "Six Cities" study, which linked air pollution and mortality risk, is a key study used in assessing many air quality regulations. In 2011, the EPA estimated that the control of particulate air pollution saved 160,000 lives in 2010, and that it will save 230,000 lives in 2020.

    a. Under the EPA's proposed "Strengthening Transparency in Regulatory Science" rule, would the EPA be able to use the Six Cities study?

    EPA is still in the process of reviewing approximately 9,000 unique, i.e. non-mass mailer public comments and conducting internal deliberations as part of the regulatory development process. No decisions have been made concerning implications for the use of specific studies.

    b. As Administrator, do you see any danger in moving forward with the "Strengthening Transparency in Regulatory Science" rule and eliminating the use of studies like the Six Cities study?

    As indicated above, the rule is still under development. No decisions have been made concerning implications for the use of specific studies.

120. Do you commit to allowing EPA scientists to continue to conduct research free from political interference and communicate with the public about their findings, including discussing it at conferences and with the media?

Yes. Consistent with EPA's Scientific Integrity Policy, EPA scientists conduct the highest quality research focused on the priorities of EPA's program offices, regions, and states. Adhering to scientific practices of quality assurance and peer review, EPA scientists are encouraged to publish their findings and present them at scientific conferences held throughout the world. EPA's Office of Public Affairs coordinates responses to media inquiries and EPA scientists have been available to address questions raised by the media.

121. At a recent meeting of the EPA Clean Air Scientific Advisory Committee (CASAC), multiple members of CASAC expressed doubt that they had the scientific experience to manage reviewing the science on particulate matter, which includes divergent scientific fields from epidemiology, to toxicology to data science to instrumentation.

    a. Do you still believe that this CASAC has the requisite expertise to provide you with advice on particulate matter?
    b. Epidemiology is a key subject for assessing the health impacts of particulate matter such as early death and cardiovascular illness, yet not a single epidemiologist is on CASAC. How can CASAC adequately assess the science on particulate and health, when its members do not have expertise in key fields like epidemiology and when there is no particulate matter review panel?
    c. Has CASAC consulted with outside experts on PM and ozone standards? If so, with whom?

CASAC is a seven-member committee, required under Section 109 of the Clean Air Act, which provides critical advice related to National Ambient Air Quality Standards (NAAQS). The membership includes at least one member of the National Academy of Sciences, one physician, and one person who represents a state air pollution control agency. In October 2018, EPA announced the appointment of five new members to the chartered CASAC. More information on CASAC and its members is available at: https://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC.

I believe the current CASAC has the experience and expertise needed to serve in this capacity as well as to complete the reviews for the particulate matter and ozone NAAQS. The chartered CASAC is filled with qualified, independent experts who have decades of experience working on ozone and particulate matter issues and a diverse set of backgrounds in fields like toxicology, engineering, medicine, ecology, and atmospheric science. EPA also has the ability to seek advice from other experts to assist CASAC as needed for these reviews.

Tasking the chartered CASAC with overseeing these reviews ensures the early engagement of the advisors who ultimately provide advice to EPA, and this action is consistent with the Clean Air Act, regulations implementing the Federal Advisory Committee Act, and CASAC's charter. In May 2018, EPA issued a memorandum outlining a "Back-to-Basics" process for NAAQS under the Clean Air Act. This memo ensures that EPA and its independent science advisors follow a transparent, timely, and efficient process in reviewing and revising public health- and welfare-based NAAQS. Consistent with the memo, EPA intends to finalize any necessary revisions to the ozone and particulate matter NAAQS by the end of 2020.

EPA welcomes feedback during all stages of these reviews from members of the scientific community and public. The Committee has received feedback from a number of outside experts during recent public meetings and teleconferences.

122. Under the Whistleblower Protection Enhancement Act of 2012, any non-disclosure agreement, whether written or oral, must include statutory language notifying employees of their whistleblower rights.

a. How does the EPA consistently make its employees aware of this right? Please provide examples.

The U.S. Environmental Protection Agency is committed to ensuring that all employees are aware of their rights to be free from prohibited personnel practices including retaliation for whistleblowing. To that end, the Agency issues annual notifications to employees by email and the email includes a link to the U.S. Office of Special Counsel website which includes specific information about OSC's mission, authority and procedures. I have attached my October 25, 2018, notification to the Agency. Specifically, the OSC is an independent federal investigative and prosecutorial agency that protects federal employees from prohibited personnel practices, including whistleblower retaliation and unlawful hiring practices. OSC also provides an independent, secure channel for disclosing and resolving wrongdoing in federal agencies.

Additionally, employees can disclose allegations of wrongdoing to the Office of Inspector General via the OIG's anonymous hotline.

In addition, the Whistleblower Protection Enhancement Act of 2012 directs Inspectors General to designate a Whistleblower Protection Coordinator. The Coordinator's role is to educate agency employees about prohibitions on retaliation for protected disclosures and educate agency employees who have made or are contemplating making a protected disclosure about the rights and remedies against retaliation for protected disclosures.

b. If there was an official finding, internally or externally, that a whistleblower was retaliated against by a member of your staff for a lawful disclosure, how would you respond and what consequences would you recommend that the retaliator face?

If there were an official finding that a supervisor engaged in whistleblower retaliation, the Agency would follow the requirements of the Chris Kirkpatrick Whistleblower Protection Act, S. 585, of 2017. While fact patterns can differ greatly, the Agency would thoroughly review the case and respond as it best deemed appropriate in accordance with the law. As the Agency's annual email notifications highlight, the Agency firmly supports whistleblower rights and protections.

Senator Merkley:

123. In 2009 the EPA issued under its Clean Air Act authority a science-based finding that greenhouse gas emissions endanger public health and welfare. This finding was made after a long public comment period with thousands of comments received and considered.

In *Massachusetts v. EPA*, the Supreme Court held that "greenhouse gases fit well within the Clean Air Act's capacious definition of 'air pollutant,'" and noted that the Act defines "welfare" similarly broadly to include effects on weather and climate. EPA has issued a request for comment on developing a new endangerment finding under Section 111(b) of the Clean Air act for "an already listed category" of pollutant. Revisiting this process would be unprecedented.

Will you commit to respecting the previous scientific process and commit to not revisiting the EPA's 2009 greenhouse gas endangerment and contribution findings?

As I have stated multiple times, I do not intend to reconsider those findings. Having said that, as Administrator, I cannot commit to take any particular action or prejudge the outcome of any matter that might come before me, as I have a responsibility to ensure that whatever actions the EPA might take under the Clean Air Act are within the lawful scope of the EPA's authority under the Act, reflected reasoned decision making, and are taken after providing public notice and comment as appropriate.

124. The Mercury and Air Toxics Standards (MATS) have been tremendously successful and that utilities have already invested significant resources towards abating this type of pollution, and support keeping the standard in place.

But on December 28th, the EPA, under your leadership, said it was no longer "appropriate and necessary" to regulate mercury and toxic air pollution from coal- and oil-fired plants.

In the *Michigan vs. EPA* case in 2015, the Supreme Court ruled that the EPA should have considered the costs at the same time that it decided whether it is was "appropriate and necessary" to regulate hazardous air emissions from power plants. The EPA complied with the ruling by submitting a Supplemental Finding in 2016 to the MATS rule, which examined industry costs and public health benefits.

Under the Trump Administration, the EPA then chose to reopen this Supplemental Finding and focus on attempting to undermine this vital health protection. You claimed that this done under the Supreme Court's mandate.

Please state the exact legal mandate that directs the EPA to revise the MATS rule that was not fulfilled by the EPA's Supplementation Finding in 2016.

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. The EPA has reexamined the cost analyses presented in the 2016 Supplemental Finding and proposes to determine that neither of the Finding's approaches to considering cost satisfies the Agency's obligation under CAA section 112(n)(1)(A) as interpreted by the Supreme Court in *Michigan*.

125. You further stated that the Clean Power Plan was withdrawn in compliance with the courts. However, the Supreme Court has never issued a determination on the legality of the Clean Power Plan. Instead, the Supreme Court simply stopped implementation while litigation continued. It has three times upheld the EPA's authority to set limits on carbon pollution.

    Additionally, the Affordable Clean Energy plan proposed has been shown by the study "The Affordable Clean Energy Rule and the Impact of Emissions Rebound on Carbon Dioxide and Criteria Air Pollutant Emissions" published in *Environmental Research Letters*, to potentially increase pollution in certain states.

    Please provide the EPA's analysis showing the impacts on individual plants and state level emissions.

    If EPA career staff disagree with the findings of the *Environmental Research Letters* study, I ask that you provide the scientific and cost-benefit justification for the disagreement.

The Clean Power Plan (CPP) was stayed by the Supreme Court and thus was never implemented and never achieved any emission reductions. The proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide of 12 to 27 million tons. As you can appreciate, we currently are in the midst of a rulemaking and are actively working to formulate a final rule. We will take your concerns into consideration as we complete the rule. Further information responsive to your questions may be found in the Notice of Proposed Rulemaking (NPRM) for the ACE rule, published at 83 Fed. Reg. 44,746 (Aug. 31, 2018) and in the supporting documents in the docket for this action, EPA-HQ-OAR-2017-0355.

126. In the New Source Performance Standards (NSPS), EPA reduced requirements on monitoring fugitive methane emissions. The EPA finds it would increase the leakage of methane by 380,000 short tons and additionally allow increases in the release of VOCs and other harmful air pollutants.

Why were the increases in VOC and other harmful air pollutants not included in the cost-benefit analysis?

On September 11, 2018, EPA proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry that streamline implementation, reduce duplicative EPA and state requirements, and significantly decrease unnecessary burdens on domestic energy producers. This oil and gas targeted improvements package is expected to save up to approximately $484 million in regulatory costs from 2019 – 2025 or $75 million annually. The accompanying regulatory impact analysis discusses the inclusion and exclusion of certain costs and benefits, and is available at: https://www.epa.gov/sites/production/files/2018-09/documents/oil_and_natural_gas_nsps_reconsideration_proposal_ria.pdf. This analysis included an evaluation of changes in methane, VOC, and HAP emissions.

127. Numerous studies including "Aerial Surveys of Elevated Hydrocarbon Emissions from Oil and Gas Production Sites" published in *Environmental Science and Technology*, and "Assessment of methane emissions from the U.S. oil and gas supply chain" published in *Science* have shown methane leak rates to be higher than EPA accounts for.

Given this fact, what is the justification for weakening these standards?

If the methane emissions leak rate of 2-3% were used, instead of the 1.4% EPA currently uses, what would be the impact on this rule and other methane emissions rules?

EPA proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry that streamline implementation, reduce duplicative EPA and state requirements, and significantly decrease unnecessary burdens on domestic energy producers. This oil and gas targeted improvements package is expected to save up to approximately $484 million in regulatory costs from 2019 – 2025 or $75 million annually.

EPA develops an annual report, titled the *Inventory of U.S. Greenhouse Gas Emissions and Sinks*, that tracks U.S. greenhouse gas emissions and sinks by source, economic sector, and greenhouse gas going back to 1990. EPA publishes the draft report in February to allow for public comment prior to publishing the final report by April 15 of every year. More information on the report, including EPA's assessment of methane emissions rates, is available at: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks.

128. In 2014, the EPA created the "electric pathway" under the RFS program to accelerate the adoption of electric vehicles, the development of charging infrastructure, and the production of biogas electricity by allowing for the creation of "electric-RINs" or "E-RINs".

Since the program's creation, no E-RIN applications for this pathway have been approved, and there are at least six applications pending. These applications have been submitted by vehicle manufacturers, charging stations, and third party clearinghouses, many of whom have been waiting years to receive a decision from your agency.

Does EPA plan to address an electric RIN-generation program in the near future?

EPA has received a number of comments that are under consideration as the agency continues to develop an e-RINs generation program. There are a range of important considerations including assessing the best methods for robust oversight that are key to successful implementation. While we do not have a date certain for completion of the program, we will continue to work through these important issues and will keep you regularly informed of the program's progress.

Will you commit to addressing this backlog and giving these applicants a response within 90 days?

Per the above answer, the agency does not have a date certain for completion of the e-RINs program, but we will keep you regularly informed of the program's progress.

129. The EPA has proposed a rulemaking that will modify applicable volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuels for the years 2020-2022. As part of this rulemaking, the agency will also be proposing volume requirements for biomass-based diesel for 2021 and 2022. This proposed rulemaking includes several regulatory amendments designed to provide clarity and increase opportunities for renewable fuel production.

Can you explain the method by which the EPA intends to clarify or make changes to those existing regulations?

EPA has not yet proposed the above referenced action. The agency plans to propose a "Reset" rule pursuant to the requirements laid out in Clean Air Act section 211(o) in 2019. Part of that rule will include provisions that will streamline elements of the pathways program. We will keep you informed of the progression of the reset proposal and provide further details once the proposal is complete. In addition, after the proposal is complete and published in the Federal Register, all interested parties will have the opportunity to submit comments or additional information to the agency regarding the proposal.

In addition, can you confirm whether EPA intends to include clarifications to the regulations related to existing alternative pathways for advanced and cellulosic biogas?

Per the above answer, EPA has not yet issued the referenced proposed rule. The agency will keep you informed of the progression of the reset proposal and provide further details once it is complete.

130. The updated Toxic Substances Control Act (TSCA) is supposed to regulate thousands of chemicals used industrially, and in an array of consumer products like paint, cleaning products, mattresses, clothes, insulation, and more. But under both former Administrator Pruitt and under your leadership, the Environmental Protection Agency has taken every opportunity to undermine, not enhance, chemical safety.

In evaluating whether a new chemical might pose an unreasonable risk, the law requires EPA to rigorously review both the intended use of the new chemical and any future uses that are "reasonably foreseen," per the definitions of the conditions of use.

However, the EPA announced in 2017 that the TSCA new chemical review process would not include a consideration of the chemical safety risk across all uses of a new chemical, and instead would allow new chemicals to enter the marketplace after considering only the intended uses identified by the industry applicant

Isn't this in direct contravention of what the law requires?

EPA considers all conditions of use, including reasonably foreseen uses (regardless of whether they are identified by the submitter), when conducting a new chemical review. The Lautenberg Act amendments to TSCA required that conditions of use means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of. The identification of reasonably foreseen conditions of use will necessarily be a case-by-case determination and will be highly fact specific.

131. Chemicals are often used for purposes that were never initially considered by the original manufacturer. Research has linked exposure to the chemicals in this now ubiquitous product to health effects ranging from reduced fertility to hormone disruption and DNA damage.

I'm concerned that, rather than evaluating the risk a new chemical may pose in the future, EPA is considering only the potential risk from the uses that the first manufacturer of the chemical initially identifies, even though if that chemical is allowed on the market on that basis without any conditions, other manufacturers are likely to use the chemical for other purposes.

Under this approach, EPA would never consider the combined risks from both intended and other reasonably foreseen uses of the chemical. This could result in a failure to address all of the potential risks of the new chemical, and inadequate protection of human health and the environment.

How do you plan on prioritizing EPA resources to ensure that chemical reviews are implemented as required by TSCA?

If confirmed, will you commit to including in both new and existing chemical risk evaluations ALL reasonably foreseeable future uses of chemicals under review?

New and existing chemical evaluations under TSCA are a top priority for the EPA, and I will ensure that resources are allocated appropriately. EPA considers all reasonably foreseen conditions of use (regardless of whether they are identified by the first manufacturer). The Lautenberg Act amendments to TSCA provided that conditions of use means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.

132. Recently, there have been a number of actions taken by the EPA that undermine resource allocation and implementation of the TSCA reform. The final fee rule establishes the "user fees" Congress authorized EPA to collect from chemical manufacturers and processors to help defray EPA's costs for implementing TSCA. This rule dramatically underestimates costs and lets the industry get away without paying its fair share.

In that fee rule, the agency grossly underestimated not only the costs of reviewing Confidential Business Information claims, but entirely excluded its costs to provide ready access to CBI required under the new TSCA to state governments and other qualified persons, or to provide public access to information that does not qualify for protection from disclosure.

If confirmed to lead the EPA, will you commit to prioritizing sound TSCA implementation by fighting for full funding for the agency, maintenance of and support for the Office of Research and Development's scientific work relevant to the TSCA program, and funding and staffing levels necessary to carry out the statute in a balanced way?

I am committed to working with the Administration and Congress to ensure that the TSCA program is adequately resourced to meet its responsibilities and requirements under the law. As you suggest, the new fees program is an important source of TSCA resources. We have put in place an appropriate fee structure based on reasonable resource estimates and assumptions. The statute gives us the opportunity to revisit those assumptions once we gain experience implementing the program.

133. Asbestos is a known carcinogen that has been banned in more than 60 countries, because there is no safe or controlled use of asbestos.

Would you agree that there is no safe or controlled use of asbestos?

To address serious adverse health impact concerns associated with exposure to asbestos, EPA has started two asbestos actions under its TSCA authorities. The first is to evaluate the uses of asbestos that are still being manufactured and imported into the United States. If EPA's risk evaluation shows that any of those uses presents an unreasonable risk to people or the environment, the law requires EPA to take action to eliminate the risk. The second action EPA has taken is to guard against former asbestos uses coming back, either through domestic manufacture or import into the United States. We are working to finalize a rule requiring that certain asbestos uses that are no longer in commerce in the United States, but existed before EPA's partial asbestos ban in 1989, cannot be restarted without EPA review and regulation. The new efforts we have initiated under our TSCA authorities, will give us a better understanding of where risks from asbestos exposure still exist, so that we can apply the most effective and protective approaches to address them.

134. EPA has proposed a significant new use rule (SNUR) for asbestos that opens the door to resuming several uses of asbestos that ended many years ago.

Instead, would you commit to opposing the asbestos SNUR and permanently banning all uses of asbestos under section 6 of TSCA?

All uses previously banned under EPA's prior Asbestos Ban and Phaseout Rule remain banned. EPA's proposed SNUR would prohibit certain unregulated uses of asbestos and require a review from EPA should anyone seek to initiate those uses, which may result in restrictions, including a decision to maintain the prohibition. Without finalizing this SNUR, these uses can currently commence in the United States at any time without review and regulation from EPA. The SNUR is the only way of assuring that these products do not enter the marketplace until the risk evaluations are completed.

135. Millions of people are still exposed to asbestos every single day, in schools, commercial buildings, construction sites, factories, and homes. Yet EPA's ongoing asbestos risk evaluation does not account for the existing presence and ongoing use of asbestos.

Do you support EPA's decision to ignore this risk by removing it from the scope of the risk evaluation?

Will you pledge to work with this Committee to include legacy use and exposure in EPA's ongoing risk evaluation?

EPA is focusing its risk evaluation on asbestos currently manufactured, imported, processed, or distributed in the United States, which falls within the agency's TSCA jurisdiction. Many existing Federal or State regulations protect against asbestos exposure from legacy uses. EPA would be happy to work with the Committee to elaborate on how legacy uses are currently addressed by EPA and other agencies.

136. The risk evaluation also excludes several types of cancer and lung disease, along with all exposure to asbestos resulting from its release into the environment. Think about the thousands of first responders exposed to asbestos dust after the tragedies of September 11th, 2001, and the resulting cases of lung cancer and mesothelioma. That type of exposure is being excluded from EPA's evaluation.

    Will you commit to removing these exclusions, and instead conducting a thorough and comprehensive evaluation?

I share your concern for first responders exposed to the asbestos dust after the tragedies of September 11, 2001. Because cancer is expected to be the risk driver, in conducting further analysis for the risk evaluation of asbestos, EPA intends to limit the scope of the risk evaluation to lung cancer and mesothelioma in humans. Evaluating these health endpoints will help to ensure that EPA's risk evaluation accounts for other health effects as well. We believe that the health effects identified in the problem formulation document are the appropriate ones to address under the risk evaluation's conditions of use.

137. The semiconductor industry in Oregon is a major employer and economic driver. Approximately 24,000 Oregonians are employed in the semiconductor industry, and it is the state's largest export.

    Several Oregon companies have expressed concern about the shutdown and the potential impact it could have on the review and approval of specialized chemicals needed for semiconductor manufacturing. The industry relies on EPA approval of chemicals with specific functional and performance attributes in its highly advanced and complex manufacturing operations.

    The primary family of chemicals that has triggered concern for companies in my state are known as onium compounds, which are primarily used as photoacid generators in the photolithography process used to manufacture semiconductors. Some of these chemicals are currently in use, some of them are under evaluation. In some cases, chemicals are approved for a temporary period of time (e.g., 6 months), and there is a risk that this period may expire without EPA having the ability to extend the approval.

    What is EPA doing to assure these companies and the public that new chemicals are being reviewed in a timely manner and that time-limited approvals will not lapse during this shutdown?

We have a productive ongoing relationship with the semiconductor industry on the onium compounds, which we appreciate are important to the industry's continued development and U.S. leadership. EPA will keep innovation in mind and ensure that chemicals important to the semiconductor industry, such as the onium compounds, move through new chemicals review as expeditiously as possible consistent with TSCA's requirements for evaluation and management under section 5.

138. The Office of Land and Management, which oversees cleanup of toxic Superfund sites, is currently down from 468 staffers to 3.

Has Superfund site monitoring or oversight been impacted or diminished in any way during the government shutdown as compared to the same time period last year?

The number of employees in excepted that worked nationwide on Superfund issues was dynamic and varied by region since the agency directed work to meet specific needs as allowed by law. EPA Headquarters and Regional excepted staff in the Superfund Program continued to respond at sites or incidents where there was an imminent threat to the safety of human life or to the protection of property. Work at Superfund sites continued without EPA involvement up to the point that additional EPA direction or funding was needed. Cleanup activities requiring new funding will start now that cleanup activities are able to commence.

139. In 2017, EPA adopted a cleanup plan for the Portland Harbor Superfund site in my home state of Oregon, one of the largest sites currently on the EPA's National Priorities List.

In response to intense lobbying from two Potentially Responsible Parties of contamination at the site, EPA has proposed weakening the cleanup standards for the entire cleanup based on a new estimate of cancer risks from a single contaminant – benzo-a-pyrene, a polycyclic aromatic hydrocarbon or PAH – even though other contaminants still persist at the site.

EPA is making this change with incomplete information, before any testing, monitoring, or design is completed for the project – which may reveal additional need for strong cleanup standards. Furthermore, the cleanup plan already provides for a five-year technical review process whereby this new risk assessment can be considered, alongside other public health concerns, to properly weigh whether reduced cleanup is necessary.

Why is the EPA weakening Superfund cleanup standards at the Portland Harbor Superfund site, thereby exposing the public to greater health risks, without the bare minimum information including: baseline monitoring data, an analysis of how this change will increase health risks from fish and clam consumption, or any analysis of cumulative risks posed by the chemical cocktail in the Harbor?

Does the Portland Harbor Superfund site remain a priority for EPA and are you committed to ensure that adequate resources exist for the Agency to support remediation efforts undertaken by PRPs at the site?

The Portland Harbor Superfund site remains a priority for EPA and continues to be included on the Administrator's emphasis list of priority Superfund sites. This designation will help ensure the site has the highest level of attention to move the cleanup forward. The Agency remains committed to providing the resources needed to work with potentially responsible parties to ensure the remedial designs and remedial actions are implemented at this site.

EPA is proposing changes to the January 2017 Portland Harbor Record of Decision (ROD) based on a new toxicological review related to one contaminant, Benzo(a)pyrene (BaP) that was released approximately two weeks after the Record of Decision was signed. (BaP is a Polycyclic Aromatic Hydrocarbon (PAH) which is produced when coal, oil, and gas are burned, spilled, etc.) Based on national research, EPA updated the estimated health risk for BaP in the *Toxicological Review of Benzo(a)pyrene* for people who contact or ingest the chemical.[16] The review updated the oral cancer slope factor for human health risk for BaP from 7.3 to 1 milligram per kilogram per day. Given that humans have less cancer risk from exposure to BaP, EPA evaluated the potential implications on the cleanup remedial action levels (RALs) from exposure to carcinogenic PAHs (cPAHs) to determine whether any areas slated for active cleanup, primarily due to human exposures from direct contact with contaminated sediments or shellfish consumption, no longer presented an unacceptable risk or may no longer require active cleanup.

To address this new information, consistent with EPA guidance, on October 22, 2018, EPA issued a proposed Explanation of Significant Differences (ESD) that proposes changes to the ROD for the Portland Harbor Superfund site. Under the proposed ESD, the changes would be:

- **Updating the beach sediment cleanup levels (CULs) for cPAHs from 12 to 85 mg/kg.**
- **Including a direct sediment CUL for cPAHs of 774 mg/kg applicable to nearshore sediments**
- **Correcting a mathematical error made in calculating the shellfish consumption sediment CULs, changing it from 3,950 to 39.5 mg/kg and updating the shellfish consumption shellfish consumption CUL for cPAHs from 39.5 to 1,076 mg/kg**
- **Updating the target tissue level for cPAHs in shellfish from 7.1 to 51.6 mg/kg**
- **Updating the highly toxic principal threat waste (PTW) threshold from 106,000 to 774,000 mg/kg – applicable to the whole site**
- **Updating the total PAH remedial action level applicable to sediments outside the navigation channel for 13,000 to 30,000 mg/kg**

[16] The toxicological review available in EPA's Integrated Risk Information System (IRIS). https://cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=329750

- **For beaches where recreational use is possible based on existing and reasonably anticipated uses and any sediment CULs are significantly exceeded, signage or other educational institutional controls may be used until the CULs are achieved.**

EPA determined that these changes will maintain the protectiveness of the 2017 ROD. All other elements in the 2017 ROD remain unchanged. These overall changes only affect areas where cleanup is driven solely by human health risks based on actual or potential exposures to PAHs and includes Terminal 4, the west side of the Willamette River between river miles 4 and 7, the upper portion of Swan Island lagoon, and the east side of the Willamette River between river miles 2.5 and 3. The amount of PTW is unchanged.

Overall the estimated total remedial area would be reduced from 364 acres to 347 acres (4.7%) if the proposed ESD is implemented. It is estimated the total cubic yards (CYs) of dredging and riverbank excavation would be reduced by 80,000 CYs – from approximately 3.02 million CYs to approximately 2.94 million CYs. The overall costs would be reduced by an estimated $35 million to $1.015 billion.

EPA accepted public comments on the proposed changes through December 21, 2018. Due to the government shutdown, we have not been able to complete the review and evaluation of those comments, but intend to do so when EPA funding is restored.

140. Last year, EPA and NHTSA released a proposal to roll back the Corporate Average Fuel Economy (CAFE) standards. The proposal would freeze fuel efficiency standards, even though many automakers have already invested in technology research and investment. It would also undermine states' abilities to set higher standards for themselves. And it would result in a drastic increase in carbon pollution.

    In order to boost fuel efficiency, at least 1,200 U.S. facilities and 288,000 American workers are building parts and materials. U.S. automakers have invested nearly $64 billion in these facilities. Your proposal would put these investments, these factories, and these workers in jeopardy.

    Will you commit to working with the states that have their own rules in place and NOT preempting those states that maintain stricter standards?

EPA and the National Highway Traffic Safety Administration (NHTSA) have jointly proposed a rulemaking for greenhouse gas (GHG) emission and fuel economy standards, respectively, affecting light-duty vehicles for the 2021 through 2026 model years. EPA also proposed to revoke the waiver of preemption currently in place which allowed California (and a number of other states that have adopted the California standards) to adopt their own GHG standards and the zero-emission vehicle program. The proposed legal basis for withdrawing the California Waiver is described in the notice of proposed rulemaking and accompanying documents, available at: Docket No.

EPA-HQ-OAR-2018-0283. EPA received a wide range of public comments on the proposal and is carefully reviewing those comments. I am committed to working with California and Section 177 states as EPA and NHTSA determine a path forward consistent with the Clean Air Act and the goal of one national program.

141. Based on the sources you have consulted, please describe the scientific consensus on the role of climate change and its relation to more severe wildfire seasons.

I have reviewed the Fourth National Climate Assessment, but I expect to receive future briefings on the causes of wildfires, including the role of active forest management and climate change.

142. In your testimony, you said you would "continue to read the literature" regarding the causes of catastrophic wildfires. I submit the following articles, including the National Climate Assessment, for your review, which find that climate change has increased the area burned in the Western United States:

    a. Vose, J.M., D.L. Peterson, G.M. Domke, C.J. Fettig, L.A. Joyce, R.E. Keane, C.H. Luce, J.P. Prestemon, L.E. Band, J.S. Clark, N.E. Cooley, A. D'Amato, and J.E. Halofsky (2018). "Forests." In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 232–267. doi: 10.7930/NCA4.2018.CH6.
    b. Abatzoglou, J. T., & Williams, A. P. (2016). Impact of anthropogenic climate change on wildfire across western US forests. *Proceedings of the National Academy of Sciences*, 113(42), 11770-11775.
    c. Keeley, J., & Syphard, A. (2016). Climate change and future fire regimes: examples from California. *Geosciences*, 6(3), 37.
    d. Keyser, A., and A. L. Westerling. (2017). Climate drives inter-annual variability in probability of high severity fire occurrence in the western United States. *Environmental Research Letters*, 12(6), 065003.
    e. Davis, R., Yang, Z., Yost, A., Belongie, C., & Cohen, W. (2017). The normal fire environment—Modeling environmental suitability for large forest wildfires using past, present, and future climate normals. *Forest Ecology and Management*, 390, 173-186.

After reading these articles, do you still believe that climate change has a limited role in the changing patterns of wildfires, including longer, more severe wildfire seasons?

Thank you for the suggested articles on the impact of climate change on wildfires. I have also found these sources to be educational as well. "Fire on the Mountain: Rethinking Forest Management in the Sierra Nevada" report by the Little Hoover Commission, the Independent California Oversight Agency[17]. The California agency stated, "a century of mismanaging Sierra Nevada forests has brought an unprecedented environmental catastrophe that impacts all Californians." Likewise, Professor Cliff Mass with the University of Washington stated recently that "The Camp Fire that struck northern California…is a profoundly disturbing environmental disaster of first magnitude...this disaster was both foreseeable and avoidable, resulting from a series of errors, poor judgment, lack of use of available technology, and poor urban planning." Professor Mass also stated that "Global warming is a profoundly serious threat to mankind, but it has little impact on the Camp Fire and many of the coastal California fires of the past few years." As I continue to examine the science of climate change and the potential impacts, I will try to avail myself of the latest science as well as the scientific advice of the career scientists here at the EPA.

<u>Senator Rounds:</u>

143. Acting Administrator Wheeler, under the RFS, the EPA is granted expanded discretionary authority to set volume obligations after 2022. If confirmed, you very well may be leading the EPA at that particular point in time.

    a. In your professional opinion, what is the range of discretionary authority granted to the EPA after 2022?
    b. How do you anticipate conventional corn ethanol being impacted after 2022?
    c. We need a thriving biofuels industry for a variety of national security reasons, including energy independence and diversity. Do you believe that Congress needs to consider statutory changes to account for the negative possibilities post-2022?

To date, EPA has not taken a position on the details of how it will conduct post-2022 program implementation. It is safe to say that responsibility for setting RVO targets shifts to EPA and that the Agency must consider a wide range of factors in determining appropriate RVO targets and RVOs. I look forward to consulting with you on this important issue as we get closer to implementation of these provisions. Congressional statutory direction would provide the best clarity to allow EPA to implement this program post 2022.

[17] Little Hoover Commission, "Fire on the Mountain: Rethinking Forest Management in the Sierra Nevada," (Report Number 242). February 2018, https://lhc.ca.gov/sites/lhc.ca.gov/files/Reports/242/Report242.pdf.

144. Mr. Wheeler, our trade partners are currently deciding how they will approach the use of gene editing in agriculture. To minimize the chance of trade disruptions, it's critical that the U.S. government have a consistent position across agencies that we can encourage other nations adopt. Will EPA collaborate with USDA and FDA in a timely manner to develop a consistent position? Moreover, is this a matter we can expect EPA to commit sufficient resources to moving forward?

If confirmed, yes, EPA will continue to collaborate with USDA and FDA in a timely manner to develop a consistent position. EPA will allocate resources to this matter as provided by Congress.

Senator Sanders:

Vermont

145. In my questions for the record for the hearing to consider your nomination for EPA Deputy Administrator, I asked whether you would commit to continuing the EPA's support for the clean-up of phosphorus in Lake Champlain through the Total Maximum Daily Load (TMDL) standard that the agency established in 2016. You responded that you would "work within the appropriations levels provided to the EPA by Congress."

In your time thus far at the EPA, have you found the appropriations levels provided to the EPA by Congress to be sufficient to ensure that the EPA's Clean Water Act obligations are satisfied in regard to phosphorus levels in Lake Champlain? If so, please provide a timeline for when the EPA will fulfil its obligations under the TMDL. If not, please describe the funding amounts and specific areas for which congressional appropriations have been insufficient to fulfil the EPA's Clean Water Act obligations, as well as your plan for requesting sufficient funds in the EPA's FY2020 budget request.

The EPA is committed to working with the states of Vermont and New York on their implementation of the Lake Champlain TMDLs. Once Congress provides appropriations, the EPA will continue to perform the agency's oversight responsibilities.

Climate Change

146. In November 2018, the U.S. Global Change Research Program released the Fourth National Climate Assessment (Assessment). Do you agree with the Assessment's findings that climate change will cause the following impacts?

If so, please describe how the EPA has factored in each impact to its decision-making in regard to each of the 33 deregulatory actions the EPA has taken under the Trump administration.

a. An increase in extreme weather that is expected to damage infrastructure, ecosystems, and social systems, particularly impacting communities and people that were already vulnerable.

b. A decrease in quality and quantity of water available for people and ecosystems due to intensifying droughts, heavy downpours, reduced snowpack, and poor surface water quality.

c. An increased risk of waterborne and foodborne diseases, heat-related deaths, allergic illnesses, vector-borne diseases, and mental health degradation, which are expected to have the greatest impact on older adults, children, low-income communities and communities of color.

d. A negative impact on the economic, cultural, and physical well-being of Indigenous peoples.

e. Degradation of our ecosystems and their services, such as "…clean air and water, protection from coastal flooding, wood and fiber, crop pollination, hunting and fishing, tourism, and cultural identities."

f. Declining crop yields, worsening livestock health, and decreasing economic vitality of rural communities.

g. An increase in power outages, fuel shortages, and service disruptions due to increased stress on our already aging and deteriorating infrastructure.

h. A continued trend of "rising water temperatures, ocean acidification, retreating arctic sea ice, sea level rise, high-tide flooding, coastal erosion, higher storm surge, and heavier precipitation events [that] threaten our oceans and coasts."

i. A reduction in outdoor economies across the United States.

I have reviewed the Fourth National Climate Assessment at this time, but I expect to receive future briefings from EPA career staff on a number of these topics. How EPA may take account of the Assessment in any future rulemaking will be determined on the record in that rulemaking. At the same time, I will note that EPA's regulatory and de-regulatory actions respecting greenhouse gas emissions have incorporated these potential impacts in decision making through the use of the "social cost of carbon" and the "social cost of methane," in accordance with Executive Order 13783 on Promoting Energy Independence and Economic Growth.

147. During this hearing, I asked you whether you agreed or disagreed with President Trump that climate change is a "hoax." You responded by saying that you have not used the word "hoax" yourself. I took that to mean that you do in fact disagree with President Trump's characterization that climate change is a hoax, but I want to ask again, just to be clear: Do you agree with President Trump that climate change is a hoax? Please provide your answer in the form of a "yes" or "no."

I believe that climate change is real, that the climate is changing, and that mankind has an impact on the climate.

148. During this hearing, I asked whether you are concerned by rising sea levels. You responded that rising sea levels are a concern and that you believe in adaptation (but not mitigation) "absent additional congressional authority." The Supreme Court in *Massachusetts v. EPA* found that the EPA does in fact have statutory authority, and indeed a statutory obligation, to regulate the carbon dioxide emissions that cause climate change.

Given that the EPA does in fact have congressional authority to mitigate climate change by regulating carbon dioxide emissions, would you like to alter your testimony?

Given that the EPA does in fact have congressional authority, and indeed a statutory obligation, to mitigate the causes of climate change, please provide your plan, including a timeline, for issuing regulations on greenhouse gases to bring the United States in line with carbon pollution emissions reduction targets prescribed by the Intergovernmental Panel on Climate Change's "Global Warming of 1.5°C" report.

I believe that my testimony was correct and as I stated at the hearing and have stated many times before, including during both of my previous hearings, we are implementing the *Massachusetts v. EPA* Supreme Court decision, which is why we are moving forward with the ACE proposal to replace the Clean Power Plan. The Clean Power Plan, I believe, as indicated by the historic stay by the Supreme Court, went outside the bounds of the Clean Air Act. We do not have Congressional authority to institute a cap and trade scheme. In order to help mitigate the causes of climate change we are moving forward with both the ACE proposal and the SAFE Vehicles proposal and we intend to finalize them both this calendar year.

<u>Clean Power Plan Replacement</u>

149. On August 21, 2018, the EPA released its proposal to repeal the Clean Power Plan. By the EPA's own estimates, this plan would drastically increase carbon and other pollution emissions from power plants as well as cause as many as 1,400 additional premature deaths, 48,000 new cases of asthma, and 21,000 new missed school days each year compared to the Clean Power Plan. In order to justify this new, weaker rule, the EPA altered its cost-benefit analysis methodology to minimize the new rule's projected damages to the environment and public health. This methodology is described in the EPA's regulatory impact analysis

"Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Unites; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program."

One way in which the EPA's analysis was altered was to ignore the health effects from direct exposure to sulfur dioxide, nitrogen dioxide, and hazardous air pollutants like mercury and hydrogen chloride. According to the EPA's regulatory impact analysis, the EPA did not include these factors in its proposal to repeal the Clean Power Plan due to "data, resource, and methodological limitations," despite their clear negative health impacts.

Given that the EPA's failure to properly consider these factors clearly violates its mission to protect human health and the environment, as well as its statutory obligation under the Clean Air Act to protect and improve the nation's air quality, please describe your plan, including a timeline, for withdrawing the EPA's proposal to repeal the Clean Power Plan.

I disagree that the EPA has failed to properly consider relevant factors in its proposal to repeal the Clean Power Plan. The EPA has not taken final action on its proposal to repeal the Clean Power Plan. The EPA has no plans at this time to withdraw its proposals to repeal or replace the Clean Power Plan. The proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide (12 to 27 million tons), sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000 to 15,000 tons). The Clean Power Plan (CPP) was stayed by the Supreme Court and thus was never implemented. EPA separately regulates fine particulate matter and ozone under its National Ambient Air Quality Standards (NAAQS). EPA expects continued reductions in emissions and concentrations of these criteria pollutants. Further information responsive to your questions may be found in the Notice of Proposed Rulemaking (NPRM) for the ACE rule, published at 83 Fed. Reg. 44,746 (Aug. 31, 2018) and in the supporting documents in the docket for this action, EPA-HQ-OAR-2017-0355.

Toxics

150. Elevated and unsafe levels of perfluoroalkyl substances (PFAS) have been found in hundreds of sites and at least one municipal water system in Vermont, and have contaminated public water and other natural resources for an estimated 16 million people nationally.

In June 2018, the Agency for Toxic Substances and Disease Registry (ATSDR) released a draft study concerning the health effects of PFAS, including, but not limited to, effects on the growth, learning, and behavior of children, increased cholesterol levels, and increased risk of cancer. Prior to the study's release, Politico reported that officials from the White House, the Office of Management and Budget, the EPA, and the Department of Defense intervened to delay the release of the study in order to avoid a "public relations nightmare." I joined with several of my Senate colleagues in writing to then-

Administrator Pruitt to request information on the EPA officials who intervened in order to delay the release of the ATSDR study. He responded by stating that the EPA did not have authority to release the ATSDR study, which is an answer that did not adequately respond to my concerns. Regardless of the EPA's authority to release or not release ATSDR studies, were you aware of any EPA officials making efforts to delay the release of this ATSDR study? If so, please provide all internal documents and communications in your agency's possession regarding any internal deliberations or discussions about this study for the record. If you are confirmed, will you commit to ensuring that the EPA does not engage in any activities which seek to delay the public release of scientific studies and reports?

On June 20, 2018, ATSDR released a draft Toxicological Profile for perfluoroalkyls for public comment. ATSDR released the draft Toxicological Profile after working collaboratively with the EPA, the Food and Drug Administration, the National Institutes of Health (including the National Institute of Environmental Health Sciences), the National Toxicology Program, the U.S. Geological Survey, and the Department of Defense (DoD). The EPA's participation in reviewing the draft profile was a result of a multi-agency collaboration that is typical for many of these cross-cutting chemical issues. These interagency collaborations take time and are intended to facilitate the development and communication of the best available science, not delay it.

Under my leadership, the EPA will continue to ensure that scientific studies and reports, in support of the agency's regulatory programs, are made available to the public upon completion of all appropriate internal reviews, consistent with applicable legal requirements, to ensure the scientific integrity and accuracy of the information presented.

151. The ATSDR study found that minimal risk levels for certain PFAS chemicals in drinking water should be significantly lower than the EPA's lifetime health advisory level of 70 parts per trillion. Based on the levels identified in the ATSDR study, please explain your plan, including a timeline, for updating the EPA lifetime health advisory level to comport with this new science on the effects of PFAS on human health.

ATSDR's June 20, 2018, draft Toxicological Profile for perfluoroalkyls includes Minimal Risk Levels (MRLs) for four PFAS chemicals: Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonic acid (PFOS), Perfluorononanoic acid (PFNA), and Perfluorohexane sulfonic acid (PFHxS). The EPA supports the efforts of other federal partners, including ATSDR, to develop information related to PFAS. The EPA continues to take concrete steps, in cooperation with our federal and state partners, to address PFAS as part of our overall mission to ensure that Americans have access to clean and safe drinking water. The EPA will continue to carefully review the draft ATSDR Toxicological Profile and will consider any information that may inform our approach to PFOA, PFOS, and other PFAS.

The EPA recognizes that other health agencies, like ATSDR, may issue different health-based values for similar chemicals based on their own statutory mandates, purposes and analyses, including more stringent values that may reflect more conservative assumptions. For example, ATSDR's MRLs for PFOA and PFOS differ by an order of magnitude from the toxicity values that were derived by the EPA in development of the EPA's drinking water health advisories (HAs) due to differences in the critical study selected for PFOA and uncertainty factors applied for PFOS.

ATSDR's MRLs and the EPA's HAs are two different tools that are used in different situations. Drinking water HAs provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. They are a concentration in drinking water that is not expected to cause any adverse human health effects over an exposure period (e.g. 1-day, 10-day, lifetime). The EPA's health advisories are non-enforceable and non-regulatory and provide technical information to state agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination. Drinking water HAs are calculated incorporating toxicity (i.e., reference doses or RfDs) and exposure parameters (i.e., drinking water intake, body weight, and other potential sources of exposure).

ATSDR's MRLs are toxicity values that are intended to be used to help public health professionals determine areas and populations potentially at risk for health effects from exposure to a particular chemical. MRLs do not take into account specific exposures like a drinking water HA. MRLs are intended only to serve as a screening tool to help public health professionals decide where to look more closely; they are not intended to indicate a maximum safe exposure level. Drinking water HAs provide non-enforceable technical guidance to state agencies and other public health officials who have the primary responsibility for overseeing drinking water systems. The EPA's HAs for PFOA and PFOS offer a margin of protection for fetuses during pregnancy and breastfed infants as well as for all Americans throughout their life.

The EPA is evaluating PFOA and PFOS under the Safe Drinking Water Act (SDWA) regulatory determination process, which builds on the work the agency completed in the health advisories for PFOA and PFOS and is an important step in the process for considering whether to establish a National Primary Drinking Water Regulation. As a part of the evaluation, the EPA will continue to carefully review the draft ATSDR Toxicological Profile and will consider all newly available scientific information. In addition, the EPA included PFOA and PFOS as priority contaminants on the SDWA Contaminant Candidate List for regulatory consideration. The EPA also collected monitoring data for six PFAS compounds, including PFOA and PFOS, from drinking water systems across the country, from 2013 to 2015, as part of the third Unregulated Contaminant Monitoring Rule.

Under the SDWA, the EPA must consider three criteria when making a determination to regulate a contaminant:

- **The contaminant may have an adverse effect on the health of persons**
- **The contaminant is known to occur or there is a high chance that the contaminant will occur in public water systems often enough and at levels of public health concern**
- **In the sole judgment of the Administrator, regulation of the contaminant presents a meaningful opportunity for health risk reductions for persons served by public water systems**

If the EPA makes a determination to regulate PFOA and PFOS, the SDWA requires that, prior to issuing a drinking water standard, the agency must undertake a number of actions, including developing a health risk reduction and cost analysis, consulting with the National Drinking Water Advisory Council, seeking recommendations from the Science Advisory Board, and publishing a proposed regulation for review and comment. The EPA is committed to performing all mandatory actions under the SDWA as its continues its regulatory evaluation.

152. Several states, including my home state of Vermont, have set health advisories for drinking water containing PFAS chemicals that are significantly more stringent than the EPA's lifetime health advisory level. The most recent update to the Toxic Substances Control Act (TSCA) contained a provision that protects states that had more stringent standards on the books before April 22, 2016 (Sec. 13 State-Federal Relationship, 15 USC § 2617(e)(1)(A)). If confirmed, will you commit to avoiding any actions that would preempt states' ability to enforce health advisory levels for PFAS enacted before April 22, 2016 that are more stringent than the EPA's standards? If you will not make this commitment, please explain why you believe that TSCA prevents states from enforcing more stringent requirements the state had established before April 22, 2016.

The preemption provisions of the Lautenberg Amendments to TSCA contain important directions that address when state actions will be preempted or not. EPA will follow all requirements of the statute with regard to preemption.

153. According to the EPA website, the EPA expected to release a PFAS management plan by the Fall of 2018. During this hearing, you stated that the release of the plan has been further delayed by the current partial government shutdown. However, the plan was clearly also delayed by other factors given that the partial government shutdown did not begin until late December. Please describe all the factors, beside the current partial government shutdown, that have caused the EPA to fall behind schedule in developing this plan to address the presence of toxic PFAS chemicals in communities throughout the country.

The EPA intends to release a PFAS action plan as soon as feasible following completion of the interagency review process. Development of the plan took careful deliberation and extensive coordination with each EPA national program office and the regional offices, including reviewing and assessing the over 100,000 comments received in response to the extensive stakeholder outreach the EPA performed following the

National Leadership Summit the EPA hosted in May 2018. While developing the PFAS action plan, the EPA decided to move forward with several individual actions to ensure priority work continued even though the plan was in development. These include developing and releasing for public comment draft toxicity values for GenX and PFBS, development of recommendations for addressing contaminated groundwater, and other priority actions. The EPA also continued to collaborate with our federal, state and local partners, including coordinating development of the GenX/PFBS toxicity values and performing interagency review on the recommendations for addressing PFOA and PFOS in groundwater.

154. Given that the EPA's current budget to manage PFAS is clearly insufficient to carry out the work needed to craft the PFAS management plan, please describe your plan to increase the EPA's FY2020 budget request relative to FY2019 to ensure that it can release the PFAS management plan a timely manner.

The development of a comprehensive PFAS management strategy is a complex undertaking that required significant engagement with the states, the public and other entities to properly develop. Using what we learned from a National Leadership Summit last May, community engagements, input from our federal partners, and public comments submitted to the EPA through the late fall of 2018, the agency is developing a PFAS action plan. That plan is currently undergoing interagency review. Previous funding levels have not delayed the development or implementation of the PFAS action plan. The EPA intends to release the plan as soon as feasible following completion of the interagency review process and once Congress provides FY19 appropriations for the agency.

155. In April 2017, the EPA decided against continuing the work of the previous administration to ban the pesticide chlorpyrifos, which poisons farm workers, children and rural communities. Chlorpyrifos is toxic and can cause neurodevelopmental harms in children and prenatal exposure can cause lower birth weight, reduced IQ, loss of working memory, attention disorders, and delayed motor development. No amount of it is safe in our food or drinking water. Based on the EPA's mission to protect human health and the environment, please outline the EPA's plan, including a timeline, to establish a ban on chlorpyrifos.

As required by FIFRA, EPA is currently evaluating chlorpyrifos under registration review (reevaluation). EPA has prioritized the chlorpyrifos reevaluation; it is one of nearly 725 pesticide active ingredients that EPA must review by October 1, 2022. EPA scientists are evaluating studies that are now available to EPA on chlorpyrifos in the new risk assessment prepared by the California Department of Pesticide Regulation in August 2018. EPA is also continuing a dialogue with Columbia University to obtain review of the raw data underlying several publications from an epidemiology study conducted by the Columbia Center for Children's Environmental Health (CCCEH). Once all of the relevant studies are assessed and the evaluated, and after considering

public comments, the agency will be in a position to make a final registration review decision for chlorpyrifos.

Additionally, because chlorpyrifos is an organophosphate pesticide, consistent with the FFDCA, EPA must also update the organophosphate cumulative assessment completed in 2006. In order to revise this cumulative assessment, the agency must also complete the underlying single-chemical risk assessments for all of the organophosphate insecticides. Before these assessments can be completed, new studies to support physiologically-based pharmacokinetic (PBPK) modeling need to be received and evaluated. Some of these studies were received in 2018; we anticipate receiving others during 2019. Based upon current resources and study submission schedules, we anticipate that a draft revised update to the organophosphate cumulative risk assessment will likely be issued for public comment in the late 2020 timeframe. Once all of these assessments are completed, and after considering public comments, the agency will be in a position to make a final registration review decision for chlorpyrifos.

On September 24, 2018, EPA also sought a rehearing *en banc* and panel rehearing of an August 2018 Ninth Circuit decision directing EPA to revoke all tolerances and cancel all registrations for chlorpyrifos. EPA is awaiting a response from the court.

Native Rights

156. The Fourth National Climate Assessment projects that Indigenous peoples will suffer some of the worst impacts of climate change due to their dependence on natural resources for their livelihoods and economies. As our natural resources dwindle, many Indigenous peoples may be forced to relocate, risking their cultural and community continuity. Please describe your plan for meeting Indigenous peoples' economic and environmental needs, particularly as they pertain to the preservation of natural resources and tribal treaty rights.

EPA's 1984 Indian Policy is the foundation for EPA's tribal program, which states that while working government to government with tribes, EPA will work to increase tribal governments' capacity to develop environmental programs, consult with tribes and consider their interests and concerns when carrying out our responsibilities in Indian country, and ensure that environmental programs are implemented in Indian country.

This strong foundation continues to guide EPA's work today. I will ensure that the EPA continues its work in protecting human health and the environment in Indian country. This includes ongoing tribal consultation and coordination, management and administration of funding and technical assistance programs, such as the Indian Environmental General Assistance Program, and continued participation with the federal Infrastructure Task Force to collaborate with tribes to seek efficiencies in federal actions around infrastructure, provide funding for infrastructure and promote sustainable practices.

In addition, I will conduct annual meetings with the National Tribal Caucus and other EPA Senior Leadership, collectively the National Tribal Operations Committee, to discuss tribal priorities and identify and address tribal environmental and human health concerns.

157. The EPA's "Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights" requires the EPA to respect tribal treaty rights, which in part means consulting with any tribes which may be impacted by the actions of the federal government.

Please describe the specific actions you have taken, as both EPA Deputy Administrator and Acting EPA Administrator, to ensure that tribes have been consulted and that their input is reflected in the actions taken by the EPA.

Please list the individuals and their affiliation with whom you have met or consulted during your time as both EPA Deputy Administrator and Acting EPA Administrator regarding tribal treaty rights.

If confirmed, will you commit to consulting with tribes regarding all EPA actions which may impact tribal treaty rights, lands, culture, and natural resources? If you will not make this commitment, why are you willing to violate the EPA's policy on tribal treaty rights?

EPA recognizes its responsibility to consult with federally recognized tribes and was one of the first federal agencies to issue a policy on tribal consultation pursuant to Presidential Executive Order 13175. The EPA Policy on Consultation and Coordination with Indian Tribes (Consultation Policy) establishes clear EPA standards for the consultation process, including defining when and how consultation takes place, and establishes management oversight and reporting to ensure accountability and transparency. I will work closely with the OITA Assistant Administrator as the Designated Consultation Official to ensure EPA adheres to the Consultation Policy. Assistant Administrator McIntosh is strongly committed to tribal consultation, and additionally has committed to working closely and meeting regularly with the National Tribal Caucus, meeting at least annually with regional tribal representatives and participating in key tribal engagement opportunities, and strengthening tribal representation at EPA by hiring a member of a federally recognized tribe to be the Director of the American Indian Environmental Office within the Office of International and Tribal Affairs.

In addition, EPA recognizes the importance of upholding tribal treaty rights and its obligation to do so. EPA issued Tribal Treaty Rights Guidance in 2016 to its staff on how to discuss tribal treaty rights under the EPA Consultation Policy. The Guidance outlines affirmative steps for EPA tribal consultations in situations where tribal treaty rights or treaty-protected resources may be affected by an EPA action. During the implementation of this Guidance, EPA will subsequently consider all relevant information obtained to help ensure that EPA's actions do not conflict with treaty

rights, and to help ensure that EPA is fully informed when it seeks to implement its programs and protect treaty rights and resources when it has discretion to do so. To ensure all EPA staff are aware of our consultation roles and responsibilities, among other aspects of our partnership with tribal governments, I have issued mandatory training to all EPA staff on Working Effectively with Tribal Governments.

I have also met directly with tribal leadership and representatives, including:

In July 2018, I met with the National Tribal Caucus Executive Committee (Paula Britton, NTC Chair, Cahto Tribe; Gerald Wagner, NTC Vice Chair, Blackfeet Tribe; and Scott Clow, NTC Secretary, Ute Mountain Tribe), to discuss several areas of concern, including tribal consultation and communication.

In September 2018, I visited EPA Region 8 and again met with Mr. Wagner and the leadership of the Blackfeet Tribe, including Timothy Davis, Chairman, and Iliff "Scott" Taylor, Vice-Chairman and other tribal representatives. During this visit, I also met with the Chairman Ron Trahan and Vice-Chairman Leonard Gray and other tribal representatives of the Confederated Salish & Kootenai Tribes on the Flathead Reservation.

In October 2018, I met with a delegation of Washington tribal leaders, including Brian Cladoosby, Chairman, Swinomish Indian Tribal Community; Nate Tyler, Chairman, Makah Tribe; Shawn Yanity, Chairman, Stillaguamish Tribe; and Russell Hepfer, Vice-Chairman, Lower Elwha Klallam Tribe, as well as Lorraine Loomis, Chair of the Northwest Indian Fisheries Commission and Justin Parker, Executive Director of the Northwest Treaty Tribes.

Also, in October 2018, I met with a group of concerned citizens at the Weir Salmon Traps to discuss the CA Water Quality Control Plan. Mr. John Mills, a member of the Me-Wuk Indians, shared his concerns in consultation of the project.

A January meeting of the National Tribal Operations Committee, including tribal representatives and EPA Senior Leadership will be reschedule to February, depending on the current government shutdown. I plan to co-chair the NTOC meeting when it is scheduled, with robust participation by EPA Assistant Administrators and Regional Administrators.

Clean Water Rule

158. On December 11, 2018, the EPA proposed a revised definition to "Waters of the United States," which would effectively repeal what is popularly known as the "Clean Water Rule." Given that the EPA's proposal will put almost 117 million Americans' water supply at risk, which runs counter to the EPA's mission to protect human health and the environment, please provide a plan, including a timeline, for withdrawing the EPA's proposed repeal of the Clean Water Rule.

The EPA and the Department of the Army are currently engaged in a multi-step rulemaking to propose a repeal of the 2015 Clean Water Rule and replace it with a revised definition for "waters of the United States," consistent with Executive Order 13778, "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States Rule,'" signed February 28, 2017. The EPA and the Army are currently reviewing over 750,000 comments received in response to the proposed repeal of the 2015 Clean Water Rule and are awaiting publication of the new proposed definition in the Federal Register. The EPA and the Army will consider feedback received in response to the public comment process for the rulemakings as the agencies determine next steps.

Senator Shelby:

159. The Consolidated Appropriations Act of 2018 included language directing the Secretaries of Energy and Agriculture and the Administrator of the Environmental Protection Agency to establish clear and simple policies that reflect the carbon-neutrality of forest bioenergy and recognize biomass as a renewable energy source provided the use of forest biomass does not cause the conversion of forests to non-forest use. I appreciate the EPA issuing guidance in April 2018 stating that future EPA regulatory actions for energy production from stationary sources will recognize biomass from managed forests as carbon neutral. I also appreciate the tri-agency statement in October 2018 affirming these principles.

Mr. Wheeler, would please provide an update on the EPA's progress towards implementing a regulation on carbon neutrality of biomass?

EPA staff have made an in-depth assessment of the various options available for moving forward, including the potential for issuing guidance under the Prevention of Significant Deterioration (PSD) permitting program that would, on a site-specific basis where appropriate, recognize the use of biomass feedstocks as Best Available Control Technology (BACT). Longer-term, EPA is assessing the value of undertaking a rulemaking in this area. If undertaken, EPA estimates that a proposed rule could be developed by the end of this year.

Senator Van Hollen:

160. Last week on January 10th, Energy and Environment Daily reported on some of the trickle down impacts of the shutdown on the functions of the EPA. In that article, Lisa Feldt of the Chesapeake Bay Foundation noted her concerns with the looming deadline in April of this year for the next step in Chesapeake Bay TMDL implementation—the third and final round of watershed implementation plans. Do you expect the EPA to be able to meet this critical April deadline for the Chesapeake Bay if the shutdown continues?

The EPA is fully committed to the Chesapeake Bay program and will be prepared to review the watershed implementation plans to be submitted by the Chesapeake Bay jurisdictions in April.

161. Last week on January 9th, the New York Times reported that the EPA has furloughed most of its roughly 600 pollution inspectors and other workers who monitor compliance with environmental laws. These staff are responsible for detecting violations that endanger human health.

These pollution inspections halted on December 24, 2018.

Eric Schaeffer, a Maryland resident and former Director of EPA enforcement, has said that the shutdown from Dec 16, 1995 to Jan 6, 1996 lead to one of the worst years ever at the EPA in terms of numbers of inspection and enforcement; and that it bogged down EPA inspections for months—not just up until the government reopened.

If the shutdown ends the day you submit your answers to these questions for the record, what impact do you expect the shutdown to have on the number of inspections and enforcement actions the EPA is able to conduct compared to a non-shutdown scenario? What will be the impact if the shutdown continues for another 30 days after the date you submit your answers to these questions for the record?

Few EPA inspections would be scheduled for January because winter weather can impact travel for our inspectors, outdoor facility operations, or the functioning of our monitoring equipment. Accordingly, disruption of any inspections that may have been planned for the month of January is not likely to significantly impact the overall number of inspections in FY2019. However, the shutdown affected planning for future inspections. Now that the shutdown is over we will work to estimate the impact of the shutdown on the number of inspections in FY2019. With respect to enforcement actions, during the shutdown we continued actions that were subject to judicial deadlines but did not initiate new actions unless it was to address an imminent threat to life or property. Thus, the shutdown may reduce the number of new cases opened in FY 2019.

162. A New York Times article from December 2017 found that at that time, over 700 employees had left the EPA since the beginning of the Trump Administration as they are disheartened by the Agency's direction. Of the employees who had quit, retired or taken a buyout package, more than 200 are scientists. An additional 96 are environmental protection specialists, a broad category that includes scientists as well as others experienced in investigating and analyzing pollution levels. Most of the employees who have left are not being replaced. Agency staff said they believed the Trump administration was purposely draining the EPA of expertise and morale.

What is the impact of the drain of scientists out of the EPA in terms of the Agency's long-term abilities to develop and use the best available science? What will the impact of this loss of scientific expertise be on the Agency's ability to protect public health?

The EPA is committed to ensuring that we have the right people in the right positions to accomplish the mission of the agency today and into the future. I am troubled by the assertion that the Administration is seeking to reduce EPA's expertise and disagree completely with that assessment.

Annual attrition of around 5%, or 700 positions is typical and the number of scientists that made up the attrition is not out of proportion to the overall numbers. EPA, like many other federal agencies, is facing the reality of a large percentage of our workforce being retirement eligible. To ensure we have a strong workforce with the correct skillsets, EPA is working on succession planning and utilizing all available hiring authorities, such as Title 42, to attract and retain important scientific expertise.

How do you plan—if confirmed as EPA Administrator—to make your employees feel valued and boost the alarmingly low morale at your Agency? In which areas, if any, will the Agency prioritize hiring of new employees?

Since being named Acting Administrator, and even before that, as the Deputy Administrator, I have made employee engagement a top priority. I have visited each of the 10 EPA regional offices, making it clear that I value and respect the work of the career workforce. Similarly, I have engaged with staff at EPA headquarters, routinely engaging with both political and career staff on important policy matters. On the Acting Administrator's web page: https://www.epa.gov/aboutepa/andrew-wheeler-messages-epa-employees.

I have posted key all employee messages regarding transparency and maintaining the public trust, signaling the high priority I place on these issues. We aim to post my daily calendar on the next day so that staff are fully aware of my internal meetings and outward facing events. At key announcements – e.g., WOTUS, the Federal Lead Action Plan, the Chrysler/Fiat enforcement settlement announcement – I make it a priority to publicly recognize and thank the career employees who are instrumental to the Agency's success.

During the government shutdown, I reached out to all employees via email as well as a phone message, letting them know how much they are missed and how important they and their work is to the Agency. We have a welcome back plan ready for when employees return to work, again emphasizing that they were deeply missed and that I look forward to resuming our day to day work together.

Finally, I have directed our Chief Operating Officer, Henry Darwin, to embark on a robust effort aimed at enhancing employee engagement and leading to a serious uptick in our numbers for the next annual Federal Employee Viewpoint Survey (FEVS) administered by the Office of Personnel Management. I have also asked our Engagement Community of Practice to evaluate our FEVS results around challenges and opportunities, and to collaborate with our regional and program offices to identify actions we can take to make EPA a better place to work.

EPA announced a plan to reorganize the Agency, which includes a plan to eliminate the Agency's science adviser office and merge it into a division in the Office of Research and Development, which EPA claims is a move to "streamline" the Agency. Why would this move not diminish the role of science in decision-making at the EPA?

EPA is not eliminating the office of the Science Advisor. EPA's science advisor has traditionally been the AA for ORD and that practice has not changed. We are only combining the Science Advisor's office with another office performing similar functions to create an Office of Science Advisor, Coordination and Policy. The current Office of the Science Advisor reports to the Assistant Administrator for Research and Development and the new office would do the same. This new office will strengthen coordination of science within ORD and the Agency.

163. As you know, under the *Clean Air Act*, both the EPA and the state of California have authority to regulate greenhouse gas emissions from the tailpipe. Under Section 177 of this act, states can choose, as twelve have done to date, to adopt California's standards in lieu of federal requirements.

Maryland is one of 12 states that follow California's lead on their 2022-2025 fuel economy standards.

The proposed rule that EPA released last year challenges the authority of states like Maryland to regulate emissions from vehicles in order to force a nationwide rollback of fuel economy and vehicle emission standards. This proposed revocation of California and the 12 states' authority is opposed by Maryland's Governor Larry Hogan. On October 26, 2018, Maryland Secretary for the Department of the Environment Ben Grumbles wrote you a letter in which he stated, "Maryland supports the principals of cooperative federalism and urges the agencies not to limit California's authority to adopt or enforce motor vehicle emissions standards or any other state's ability to adopt California's standards."

Can you commit today not to finalize clean car standards that attack state leadership on clean cars, either by revoking California's waiver to enforce its existing 2022-25 standards, or asserting that the Energy Policy and Conservation Act preempts state clean car standards?

EPA and the National Highway Traffic Safety Administration (NHTSA) have jointly proposed a rulemaking for greenhouse gas (GHG) emission and fuel economy standards, respectively, affecting light-duty vehicles for the 2021 through 2026 model years. EPA also proposed to revoke the waiver of preemption currently in place which allowed California (and a number of other states that have adopted the California standards) to adopt their own GHG standards and the zero-emission vehicle program. The proposed legal basis for withdrawing the California Waiver is described in the notice of proposed rulemaking and accompanying documents, available at: Docket No. EPA-HQ-OAR-2018-0283. EPA received a wide range of public comments on the proposal and is carefully reviewing those comments. I am committed to working with California and Section 177 states as EPA and NHTSA determine a path forward consistent with the Clean Air Act and the goal of one national program.

164. Environmental enforcement numbers have decreased since the end of the Obama Administration. One reason for this is that no enforcement engineer or officer has been replaced in any of the 10 Regions.

How do you plan to ensure EPA enforcement is taking place while there are very few inspectors, enforcement officers and lawyers in place to bring enforcement cases in the regional offices? How will you work to address gaps in enforcement staff and initiate the hiring process?

Many environmental enforcement numbers are heavily impacted by large cases. For example, the $305 million civil penalty in the recently settled Fiat Chrysler Automobiles (FCA) case was larger than all the administrative and civil judicial penalties imposed by EPA in FY2009, FY2010, FY2011, FY2012, FY2014, FY2015, and FY2018.

Before Congress enacted the FY 2018 continuing resolution, EPA was under a hiring freeze. When Congress provided funding and an FTE ceiling, that freeze was lifted and OECA and the regional offices are allocating the enforcement FTE in a strategic manner to address the greatest needs. OECA has already hired or is in the process of hiring criminal investigators, attorneys, chemists, analysts, and an engineer. EPA continues to ensure compliance with federal environmental laws by helping to increase state capacity, providing compliance assistance, expanding EPA's self-audit program, using data analytics to target inspections where noncompliance is likely to be found, focusing its enforcement resources on the most impactful cases, and bringing criminal charges against bad actors.

165. Can you walk through the scientific method that, if confirmed, you would want the EPA to use for risk evaluations under TSCA to determine if chemicals have an unreasonable risk and should be regulated? My understanding is that EPA is currently working on draft risk evaluations for 10 chemicals including asbestos and 1-4 Dioxane.

Will EPA be using the Systematic Review framework for TSCA--even though scientists warn that it favors industry science? Will the EPA review include all uses, including reasonably foreseeable and legacy uses, in both new and existing chemical risk evaluations?

The Lautenberg Act amendments to TSCA require EPA to use information in a manner consistent with the best available science and base decisions on the weight of the scientific evidence. EPA is using a structured systematic review process of identifying, evaluating, and integrating evidence in the risk evaluations. The goal of systematic review, including EPA's framework, is to ensure that the EPA review of the science is objective, consistent, and transparent.

EPA will continue to review all conditions of use consistent with the TSCA requirements for new and existing chemical evaluations.

EPA considers all conditions of use, including reasonably foreseen uses (regardless of whether they are identified by the submitter), when conducting a new chemical review. The Lautenberg Act amendments to TSCA required that conditions of use means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.

166. Regarding the MATS rule, in determining that it is no longer "appropriate and necessary" to require power plants to reduce their mercury and air toxic emissions, EPA has decided to base this decision only on some of the quantifiable benefits and all of the costs to industry. The costs EPA uses is also woefully out of date, about two times higher than actual costs. It seems to me that EPA is breaking the "arbitrary and capricious" test by ignoring the co-benefits and other benefits the agency cannot quantify. Under what legal basis, did EPA decide to ignore co-benefits and benefits like reducing birth defects and cancer rates when determining "appropriate and necessary"?

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject. The basis for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. Information responsive to your questions may be found in those documents.

167. As most people know, mercury is a neurotoxin that effects the most vulnerable, children in the womb. Other air toxics like formaldehyde, arsenic and beryllium have long been known to cause cancer. Since you have determined that it is not "appropriate and necessary" to reduce our nation's largest sources of mercury and air toxics through its MATS proposal, does that mean you believe there is a safe level of mercury exposure for developing infants? If so, what are those levels? Is there a safe level of exposing children to carcinogens? If so, what are those levels?

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject. Further, I would direct your attention to the NPRM signed on December 27, 2018, and the supporting documents contained in the rulemaking docket, which provide an explanation of the EPA's position on the matters you raise and which may have information responsive to your questions.

Senator Whitehouse:

168. When we met in my office on January 15, you told me that your proposed rule to freeze the fuel economy and greenhouse gas (GHG) emissions standards for cars and light trucks would actually result in less carbon pollution in certain years than under the existing standards. You repeated this claim at your confirmation hearing.

> However, according to your own rule, GHG emissions would rise under your proposal compared to the existing standards. This predicted increase in GHG emissions is discussed on Federal Register pages 43326 through 43330 of your proposed rule. Please cite to me any support in EPA's proposal for your statements that EPA's proposal would result in reduced GHG emissions compared to the existing standards. Note: please do not tell me what your experts may have told you; I am asking you to provide references from EPA's proposed rule that support your claim that EPA's proposal would reduce GHG emissions compared to the existing standards.

The proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule and its accompanying documents evaluate the potential impacts under a range of alternatives. As I clarified during the hearing, President Obama's approach to setting light duty vehicle standards focused exclusively on energy efficiency and carbon dioxide reductions while the SAFE Vehicles Rule would achieve multiple policy goals by locking in greenhouse gas emissions reductions, protecting lives, and getting older vehicles off the road. The preliminary regulatory impact analysis, for example, evaluated potential effects for model years through 2029 for greenhouse gases, criteria pollutants (including carbon monoxide, volatile organic compounds, nitrogen oxides, sulfur dioxide, and particulate matter), fuel consumption, vehicle miles traveled, and fatalities. Chapter 4 and 5 of NHTSA's draft Environmental Impact Statement also evaluated emissions changes, including for greenhouse gases, carbon monoxide, nitrogen oxide, volatile

organic compounds, particulate matter, and sulfur dioxide, for a range of alternatives. The draft EIS found that directions and magnitudes of changes in emissions were not consistent across all pollutants due to the complex interactions between emission rates, technologies, increases in vehicle miles traveled, and other factors. As outlined in the preamble to the proposed rule, decisions about the inclusion of certain compliance flexibilities could result in less stringent standards and trade-offs with improved vehicle performance. EPA and NHTSA sought public comment on a wide range of options, including related to the current compliance credit system and options for curtailing, reforming or expanding it. More information is available at Docket No. EPA-HQ-OAR-2018-0283.

169. You also told me in our meeting that EPA's proposed rule to replace the Clean Power Plan (CPP) would result in almost exactly the same reduction in carbon pollution as the CPP. You repeated this claim at your confirmation hearing.

> However, according EPA's proposed rule as printed in the Federal Register , GHG emissions would be higher under your proposal than under the CPP. This predicted increase in GHG emissions is discussed on page 44784.
> Please cite to me any support in EPA's proposal for your statements that your proposal would result essentially the same GHG emissions reductions as the CPP. Note: please do not tell me what your experts may have told you; I am asking you to provide me references from EPA's proposed rule that support your claim that EPA's proposal would result in the same GHG emissions reductions as the CPP.

EPA projects that, compared to a no Clean Power Plan (CPP) scenario, the Affordable Clean Energy (ACE) rule will reduce carbon dioxide (CO2) emissions in 2025 by between 13 and 30 million short tons. Illustrative scenarios suggest that when states have fully implemented the ACE rule, U.S. power sector CO2 emissions could be around 34% below 2005 levels. In the final CPP, EPA projected that that rule would result in U.S. power sector CO2 emissions of 32 percent below 2005 levels. CO2 emissions in the power sector have steadily declined in recent years due to a range of factors including: market forces, technology improvements, regulatory and policy changes. As a result, the industry has increased the use of natural gas and renewable energy sources. These trends have resulted in CO2 emission reductions even as the U.S. has sustained economic growth and job gains across the economy—and this has all happened without the CPP ever going into effect, due to it's being stayed by the Supreme Court. The ACE rule will continue this trend. Further information responsive to your questions may be found in the Notice of Proposed Rulemaking (NPRM) for the ACE rule, published at 83 Fed. Reg. 44,746 (Aug. 31, 2018) and in the supporting documents in the docket for this action, EPA-HQ-OAR-2017-0355.

170. How many meetings with Trump administration officials for Bob Murray and/or Murray Energy did you arrange, attempt to arrange, and/or attend?

To the best of my knowledge and memory (I no longer have access to my calendar from my former firm) I arranged and attended three meetings with Trump Administration officials on behalf of Murray Energy.

171. Please list, with date, time, and people present (as applicable) every meeting with the Trump administration you arranged, attempt to arrange, and/or attended with or on behalf of Bob Murray and/or Murray Energy? Please also provide the time, date, and people present for any preparation sessions for such meeting(s).

The first two meetings I arranged/attended were held on March 29, 2017. The first was with Secretary Perry and several of his staff. The second meeting was with the NEC energy advisor. In addition to myself, attendees included Mike Carey and Robert Murray, both with Murray Energy. The only preparatory sessions would have been in the morning, the same day as the meetings, and would have only included Mr. Murray, Mr. Carey, and myself. Sometime in April, I arranged and attended a meeting with the NEC labor advisor. The other attendees were Mike Carey and Robert Murray.

172. At how many of these meetings was the Murray "action plan" discussed?

The purpose of the meetings was not to discuss the Murray Action Plan. The first two meetings were to discuss potential assistance from the Department of Energy to help the coal-fired utility sector. Mr. Murray gave Secretary Perry a copy of his plan at the beginning of the meetings as an FYI. The topic of the meeting was the DOE assistance which, in my understanding, is not covered by the action plan. The third meeting discussed specific labor issues.

After I joined the Agency in April 2018, I was invited to a meeting at DOE to discuss the potential use of section 202 of the Energy Power Act to assist the coal-fired utility sector. Since I considered this topic to be a logical outgrowth of my March 29, 2017 meeting, I recused myself from the issue and amended my ethics agreement to reflect the recusal.

173. You told me at your first confirmation hearing on Nov. 8, 2017 that you didn't remember where you saw the Murray "action plan" and you didn't remember the context in which it was discussed. Do you stand by that answer today? If not, please correct the record.

I stand by my answer. I recommended to all my clients that they draft "action plans" or "wish lists" for the incoming Administration. My former firm did the same thing at the beginning of the Obama Administration and I am told that they did the same thing at the beginning of the Bush Administration. I further recommended that my clients

deliver their recommendations on their own letterhead. We supplied contact information for both Presidential campaigns and transition teams as well as the contact information for the incoming Trump officials. In some cases, we assisted clients in developing their lists, in other cases the clients did it on their own. Murray Energy is a highly sophisticated corporation; they developed their list on their own and took it upon themselves to deliver it to high-ranking officials, which I believe to be more impactful.

174. EPA announced that this June it will finalize amendments to the 2015 Coal Ash Rule, which incorporate elements of EPA's March 2018 proposal to weaken the protective standards of the rule, including eliminating the rule's nationwide cleanup standards. In March 2017, you met with Secretary Perry to discuss the Murray action plan which, among other things, proposed a complete suspension of the 2015 coal ash rule. The plan was accompanied, by six draft Executive Orders for President Trump that would further rescind coal safeguards. One Executive Order directed immediate suspension of the "operation and implementation" of the Coal Ash Rule, directed EPA to attempt to stop ongoing litigation against the agency concerning the rule, and instruct the EPA to amend the rule to prohibit citizen suits to enforce the rule.

    a. Are you familiar with this Executive Order? ("Presidential Executive Order on Restoring the Rule of Law, Federalism, Economic Growth, and Reducing Regulatory Costs by Reviewing the Final Rule on Disposal of Coal Combustion Residuals from Electric Utilities (the "CCR Rule"), Published on April 17, 2015 By the United States Environmental Protection Agency, 80 Fed. Reg. 21302 (2015)")

    Through the press, I am familiar with the draft Murray Executive Orders.

    b. Did you write or review this Executive Order?

    I did not write or review the draft Executive Order. I do not remember any of the draft orders being attached to the action plan that I saw.

    c. If so, do you believe that you should recuse yourself from further review and oversight over EPA's efforts to weaken the Coal Ash Rule?

    Does not apply.

175. The following questions relate to federal ethics laws and regulations:

    a. President Trump promised to end corruption in Washington. Would you agree that applying and enforcing federal ethics laws and regulations, and the Trump "Ethics Pledge," are important tools to do that?

    Yes, I would.

b. This is the second time you've come before the Senate for advice and consent. Would it be fair to say that by now you are personally familiar with federal ethics requirements?

I received ethics training from EPA career ethics officials upon joining the Agency, and I am personally familiar with the many ethics requirements. If questions regarding ethics issues arise, I routinely seek and abide by the advice of career ethics officials.

c. Are you aware that federal regulations and the Trump "Ethics Pledge" prohibit political appointees from working on particular matters on which they previously represented clients as well as from meeting with former clients?

I am aware that federal ethics regulations do provide certain restrictions and the Trump Ethics Pledge provides additional restrictions. I signed a Recusal Statement in May of 2018, shortly after my confirmation as Deputy Administrator and have abided by checking with career ethics officials with any questions.

d. If you learned that an EPA employee violated federal ethics regulations or the Trump "Ethics Pledge," would you take this matter seriously?

Yes, I do take the ethics issues seriously.

e. Do you promise to take all steps within your power to ensure that EPA employees abide by all applicable ethics requirements? Does that include disciplining employees who violate those requirements as appropriate?

I will work to make sure EPA employees abide by all applicable ethics requirements. In fact, in my first month as the Acting Administrator I convened an all-hands political staff briefing on ethics issues by EPA career ethics professionals and White House Counsel. Breaches of ethics obligations could include discipline where appropriate.

176. Did you ever bundle, solicit, or gather donations for any 501(c)(4), 527, political action committee, or any other outside spending group? If so, list the organizations by name, the dates during which you engaged in this activity, and the approximate amounts you raised.

I have not bundled, solicited, or gathered donations for any 501(c)(4), 527, political action committee, or other outside spending groups. I have cohosted fundraisers for candidates for election or re-election to Congress, so my name has appeared on invitations for events. Opensecrets.org listed me as a bundler for Mitt Romney's 2012 Presidential campaign. I am not sure what criteria they used to determine that title but I did invite a number of people who attended a few of his events. My name appeared on

invitations for membership for both the Washington Coal Club and the National Energy Resource Organization when I was an officer in both organizations. Neither of these organizations would be considered outside spending groups, although both are non-profits.

177. Do you commit to provide all information responsive to the previous question to EPA ethics officials so they can assess whether that activity raises conflicts of interest or an appearance that you cannot conduct your duties impartially?

I believe I have already provided all of the relevant information to the EPA career ethics officials. If there is additional information they need, I would be happy to comply.

178. You and I have discussed the serious economic risks of climate change the last two times we have met. I have provided you with numerous reports and articles detailing these risks.

a. The first of these economic risks is the risk of a coastal real estate crash. This is what Freddie Mac, the federal home mortgage backer, has to say about climate risk:

"[R]ising sea levels and spreading flood plains nonetheless appear likely to destroy billions of dollars in property and to displace millions of people. The economic losses and social disruption may happen gradually, but they are likely to be greater in total than those experienced in the housing crisis and Great Recession."

This is what the Union of Concerned Scientists has to say:
"In the coming decades, the consequences of rising seas will strain many coastal real estate markets – abruptly or gradually, but some eventually to the point of collapse – with potential reverberations throughout the national economy."

This is what the insurance industry trade magazine *Risk & Insurance* has to say:

"These bellwether locations [Miami, Atlantic City, and Norfolk] signify a growing and alarming threat; that continually rising seas will damage coastal residential and commercial property values to the point that property owners will flee those markets in droves, thus precipitating a mortgage value collapse that could equal or exceed the mortgage crisis that rocked the global economy in 2008."
Freddie Mac estimates that between $238 billion and $507 billion worth of real estate will be below sea level by 2100, and UCS estimates that nearly 2.5 million residential and commercial properties worth $1.07 trillion will be at risk of chronic flooding by 2100. The First Street Foundation studied the impact of rising seas and increased flooding on real estate in the southeast, and found that

coastal real estate in the southeast has already lost $7.4 billion in value since 2005 because of sea level rise.
Many of the rollbacks you've proposed since assuming the helm at EPA – freezing automobile fuel economy and greenhouse gas emissions standards, replacing the Clean Power Plan, weakening methane leak inspection and repair standards, weakening carbon pollution emission standards for new power plants – would all result in increased carbon pollution compared to the regulatory regimes they are designed to replace.
Did you consider the potential for a coastal property real estate crash and the associated economic costs when considering these proposals? If so, please cite to me where in these proposed rules or in the accompanying regulatory impact analysis this is discussed. If not, why did you not consider this serious economic risk when designing these proposals?

b. The second of these economic risks is the risk of a carbon bubble. This is what Mark Carney, the Governor of the Bank of England has to say:
"The exposure of UK investors, including insurance companies, to [stranded assets] is potentially huge."
This is what the head of insurance supervision at the Bank of England has to say:
"As the world increasingly limits carbon emissions, and moves to alternative energy sources, investments in fossil fuels and related technologies [...] may take a huge hit."
This is what academics at University College London have written:
"Our results suggest that, globally, a third of oil reserves, half of gas reserves and over 80 per cent of current coal reserves should remain unused from 2010 to 2050 in order to meet the target of 2 degrees Celsius."
This is what academics at Cambridge have written:
"Our conclusions support the existence of a carbon bubble that, if not deflated early, could lead to a discounted global wealth loss of US$1 – 4 trillion, a loss comparable to the 2008 financial crisis."
Many of the rollbacks you've proposed since assuming the helm at EPA – freezing automobile fuel economy and greenhouse gas emissions standards, replacing the Clean Power Plan, weakening methane leak inspection and repair standards, weakening carbon pollution emission standards for new power plants – would all result in increased carbon pollution compared to the regulatory regimes they are designed to replace.
Did you consider the potential for a carbon bubble and the associated economic costs when considering these proposals? If so, please cite to me where in these proposed rules or in the accompanying regulatory impact analysis this is discussed. If not, why did you not consider this serious economic risk when designing these proposals?

The record for each of the proposed actions cited in your question is available for review. At the same time, I will note that EPA's regulatory and de-regulatory actions respecting greenhouse gas emissions have incorporated these potential impacts in decision making through the use of the "social cost of carbon," in accordance with

Executive Order 13783 on Promoting Energy Independence and Economic Growth.

179. Are there any circumstances under which written EPA protocols for selecting members of EPA's various science advisory boards should be departed from? If so, please describe the circumstances that would justify departing from established member selection protocols.

At this time, I cannot envision any circumstances under which EPA's written protocols would not be followed when selecting members for its various scientific advisory boards.

180. Dr. Nancy Beck is currently overseeing the implementation of the reformed TSCA legislation. Dr. Beck has developed her own systematic review process for assessing the quality of the scientific studies upon which it will rely to determine the safety of the chemicals it reviews. The first chemical to undergo a risk evaluation under the reformed TSCA is Pigment Violet 29 (PV29). In its draft risk assessment, EPA concluded that PV29 is safe.

EPA's draft risk assessment's conclusion that PV29 is safe relied in part on two studies by German chemical giant BASF. These studies were conducted in 1976 and 1978. Using Dr. Beck's systematic review process, EPA concluded that these two studies were of "medium" quality. Yet BASF, in a regulatory filing with the European Chemicals Agency, admitted that these same studies were "not reliable."

a. Should EPA's risk assessments be relying on studies whose own industry sponsors admit that they are "not reliable?"
b. Why was Dr. Beck allowed to create her own systematic review process for the TSCA program?
c. Why was EPA's own IRIS-developed systematic review process, which has been positively reviewed by the National Academies, not adopted for use for the TSCA program?
d. Will you commit to me that going forward, the TSCA program will not use any systematic review process that has not first been examined by the National Academies?

The Lautenberg Act amendments to TSCA require EPA to use information in a manner consistent with the best available science and base decisions on the weight of the scientific evidence. Scientists in EPA's Office of Chemical Safety and Pollution Prevention have developed a structured systematic review process of identifying, evaluating, and integrating evidence in the risk evaluations. The goal of systematic review, including EPA's Systematic Review framework, is to ensure that the review of the science is objective, consistent, and transparent. The TSCA program has coordinated with other program offices, including the IRIS program, throughout the process of developing the systematic review framework. We released a working draft of the Systematic Review framework in June, and EPA is currently working to address

public comments received on the framework. EPA also will submit our methodology to the National Academy of Sciences (NAS) for peer review and feedback. Regarding PV-29, EPA evaluated the studies under its Systematic Review framework and looks forward to receiving and reviewing comments from the public and peer reviewers on our implementation of the approach.

181. In a final rule published in 2014, EPA approved a new cellulosic biofuel pathway that allows producers additional options to comply with the standard. EPA deemed that charging electric vehicles with renewable electricity derived from cellulosic biogas would create cellulosic biofuel credits, and several companies applied to EPA to get approval under this new pathway (known as the "e-rin" pathway). EPA in late 2016, held an additional comment period to identify and solicit comment on how to administer the e-rin pathway to avoid double counting as well as address other complexities. Since the 2016 rule, the EPA has over two years to review several pending applications and has yet to take any administration action. In my meeting with you, you discussed that there are several outside groups interested in generating the RIN and thus it's a complicated issue. I agree, but that doesn't mean that EPA should not put dedicated staff toward figuring out this issue and providing guidance on how to develop e-rins under the RFS.

    a. Has EPA reviewed the comments from the 2016 proposed rule on how to successfully administer this pathway? If so, why has EPA not taken an action in 2 years to clarify necessary changes if they are needed?
    b. If the pathway was originally approved in 2014 and EPA has already finished a public comment on how to administer the pathway, why has EPA not been able to develop a mechanism to administer the program in nearly 5 years?
    c. Do you commit to having staff work on developing a credit transfer program, to avoid double counting, and review the 40+ applications that have been pending for e-rins at EPA since 2016?

EPA has continued to study this issue. The "e-rin pathway" is particularly difficult for EPA to implement. There typically are several entities in the chain from electricity production to ultimate use in an electric vehicle. Predictably, we have received feedback from many entities in the chain indicating they all want full credit for any RINs generated under this pathway, which would lead to over-counting. More importantly, there are complex challenges related to generating the data needed to ensure the integrity of the program to prevent error and fraud. We continue to work on this pathway and hope to find workable solutions.

182. EPA has an important role in supporting the growth of biofuels, thereby adding diversity to the nation's fuel mix within the transportation sector. EPA's work is especially important within the advanced and cellulosic fuels markets where advances in technologies have the potential to bring important new low-carbon fuels to the market.

Last August, when you testified before this Committee, you committed to providing "certainty within EPA programs" in order to be a better partner with the private sector, as appropriate, in order to provide the clarity and transparency it needs to grow and create jobs.

While work on several efforts related to biofuels are currently being processed within EPA, one effort which remains unresolved and where uncertainty remains is the work related to biointermediates.

As you may know, the Environmental Protection Agency initiated work to address this topic via EPA-HQ-OAR-2016-0041-0196 in May of 2015. A proposed rule was published in November, a public meeting was held in December 2016, and the comment period closed in February 2017. While additional issues beyond the topic of biointermediates were included in EPA-HQ-OAR-2016-0041-0196, a wide range of entities and comments were submitted in support of providing certainty for biointermediates.

To date though, action on the specific issue of biointermediates has not moved forward and the lack of progress has added uncertainty into this segment of the renewable transportation fuel market.

In the proposed rule, the Environmental Protection Agency noted that it may be "preferable for economic or practical reasons for renewable biomass to be subjected to substantial pre-processing at one facility before being sent to a different facility where it is converted into renewable fuel." The Environmental Protection Agency also noted that biointermediates will "likely provide an important component of the growth in renewable fuel production in the future, particularly for advanced and cellulosic biofuels," and proposed "changes in the RFS regulations to clearly specify requirements that apply when renewable fuel is produced through sequential operations at more than one facility."

a. First, given that the Environmental Protection Agency issued a proposed rule regarding biointermediates in 2016 and has since received and reviewed more than forty comments relating to the biointermediates proposal, has the Environmental Protection Agency considered moving forward and providing certainty on the matter of biointermediates in 2019?
b. Second, should you be confirmed, can you provide any certainty whether the Environmental Protection Agency will successfully incorporate biointermediates into one of the pending proposed rules in the unified regulatory agenda on renewable fuels such as the pending rulemaking which proposes modifying the applicable volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuel for the years 2020 – 2022, especially since the abstract for that rule states that it will cover volume modifications, as well as "several regulatory amendments designed to provide clarity and increase opportunities for renewable fuel production."

Biointermediates is one of several issues addressed in the REGs proposal. In November 2016, EPA proposed the Renewables Enhancement and Growth Support (REGS) rule and sought public comment on a variety of topics, including on designing an electric RIN-generation program. EPA has not finalized the proposal and continues to evaluate feedback regarding issues like feedstock eligibility, double counting, and verification. At this time, we do not have a timeline to share regarding when further decisions will be made. EPA takes very seriously the interest in this rule and the concerns of the biomass power industry, and I believe we need to resolve these key policy considerations before finalizing the proposal or pursuing alternative regulatory actions as appropriate. More information on the proposal is available at: https://www.epa.gov/renewable-fuel-standard-program/proposed-renewables-enhancement-and-growth-support-regs-rule.

183. Do you think there should be a standardized social cost of carbon? Is the social cost of carbon greater than zero dollars per metric ton? If so, what is the most accurate social cost of carbon in 2018 and what is the best way to calculate this number?

President Trump's Executive Order 13783 on Promoting Energy Independence and Economic Growth, called for agencies to follow OMB Circular A-4 when calculating the social cost of carbon for use in benefit-cost analysis. In accordance with the Executive Order and consistent with OMB Circular A-4, EPA assessed the impacts of changes to carbon emissions on the United State. EPA's application of the Social Cost of Carbon is presented in several of our regulatory impact analyses. See, for example, "Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program," https://www.epa.gov/sites/production/files/2018-08/documents/utilities_ria_proposed_ace_2018-08.pdf. This analysis presents a distribution of estimates based on thousands of model runs. Using a discount rate of 3 percent, the average domestic climate benefit for a one ton reduction in carbon in 2030 is $8 (2016$). Using a discount rate of 7 percent gives an average estimate of $1 for a ton of carbon reduced in 2030.

184. Do you agree with the majority of scientists that anthropogenic climate change is happening?

   a. If so, do you agree there are costs to inaction as well as costs to action?
   b. Do you believe the American public should have to pay for the costs of inaction—the storm damaged homes, lost crops, and failing fisheries?
   c. Do you believe that these costs of inaction have a value that can be calculated? Is the value greater than zero?

Yes, the climate is changing and anthropogenic GHG emissions are contributing to the change. As noted in response to Question 178, above, we account for the "social cost of carbon" in all relevant rules.

185. A 2007 legal challenge prompted the courts to direct the government to further quantify the costs and benefits of a ton of carbon pollution in federal government rulemakings. Specifically, the U.S. Court of Appeals for the 9th Circuit agreed that in quantifying the benefit of cutting carbon pollution but admonished that the value is "certainly not zero."[18] The Court asked National Highway Traffic Safety Administration to do a new rule that addressed this issue. This court decision led the Bush and Obama Administrations to further refine a value for the SCC. Do you reject this decision? If so, please explain why and how that affects how you approach your responsibilities.

EPA routinely considers costs and benefits in its actions, including where it is required to by statute, caselaw, or executive order. EPA's regulatory and de-regulatory actions respecting greenhouse gas emissions have incorporated an analysis of those emissions' potential impacts into its decision making through the use of the "social cost of carbon," in accordance with Executive Order 13783 on Promoting Energy Independence and Economic Growth.

186. In 2009, the Obama administration created an interagency working group (IWG) in an effort to create a governmental value for the social cost of carbon, which based its calculations on peer-reviewed economic models and expert opinions. The models included in their analysis were the Dynamic Integrated Climate-Economy (DICE)[19], Policy Analysis of the Greenhouse Effect (PAGE)[20], Climate Framework for Uncertainty, Negotiation and Distribution (FUND)[21], and World Induced Technical Change Hybrid (WITCH)[22] models. The IWG was comprised of scientists and economists from the Office of Management Budget, the Council for Environmental Quality, the National Economic Council, the EPA, the U.S. Department of Agriculture, Energy, Transportation, and Treasury.

a. Can you discuss whether you think the models used by the IWG are appropriate and credible tools for calculating the social cost of carbon?

The Administration has updated its social cost of carbon estimates to comply with President Trump's Executive Order 13783. These estimates continue to use the same three integrated assessment models used by the Obama Administration. It is worth noting that those models necessarily require assumptions about future economic growth, future population growth, technology changes, future greenhouse gas emissions, climate sensitivity, and damage functions for more than 200 years. Hence the underlying uncertainty of the inputs may be even greater than the uncertainty in the climate assessments incorporated into the model. EPA has included the updated

[18] *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508, U.S. Court of Appeals for the 9th Circuit (2007), available at http://caselaw.findlaw.com/us-9th-circuit/1024716.html.
[19] Dynamic Integrated Climate-Economy model (DICE), http://www.econ.yale.edu/~nordhaus/homepage/dicemodels.htm
[20] Policy Analysis of the Greenhouse Effect (PAGE), http://climatecolab.org/resources/-/wiki/Main/PAGE
[21] The Climate Framework for Uncertainty, Negotiations and Distribution (FUND), http://www.fund-model.org/
[22] World Induced Technical Change Hybrid model (WITCH), http://www.witchmodel.org/

social cost of carbon estimates in recent regulatory proposals and has asked for public comment on these analyses.

b. Can you comment on whether the IWG was comprised of the right governmental stakeholders and actors?

Executive Order 13783, issued in March 2017, disbanded the IWG. It is difficult to know if the right governmental stakeholders and actors comprised the IWG as to my knowledge, the Obama Administration never released a list of names of participants.

187. On March 28, 2017, the President issued a Presidential Executive Order on Promoting Energy Independence and Economic Growth, which disbanded the IWG, withdrew the guidance it issued, and reverted to OMB Circular A-4 of September 17, 2003 (Regulatory Analysis). This in effect requires each agency to estimate the value of changes in greenhouse gas emissions resulting from regulations. Do you believe the regulatory process will be more effective and efficient in the absence of unified guidance on how to monetize the value of changes in greenhouse gas emissions? How does this advance the value of regulatory certainty you claim to support?

OMB Circular A-4 embodies the best practices for conducting regulatory cost-benefit analysis. Compliance with OMB Circular A-4 across EPA rulemakings, and across the federal government, including in those instances for which an agency may assess the costs or benefits of carbon, advances regulatory certainty. President Trump's Executive Order 13783 gave explicit instructions on how to move forward on estimating a new Social Cost of Carbon, utilizing the guidance set forth in OMB Circular A-4. In implementing these new instructions, EPA has included this analysis in recent regulatory proposals and has asked for public comment on these analyses. These instructions and the transparent process implemented by EPA has provided a great deal of regulatory certainty to the public: they understand the range of domestic SCC values applied by EPA; they also understand how we arrived at these estimates.

188. Part of the social cost of carbon calculation assumes a value for discount rates. The IWG after reviewing past OMB guidance recommended using a 3% discount rate[23].

a. Do you have an opinion on what the discount rate value should be when calculating the social cost of carbon?
b. Scientific research has found that it would be more accurate to use a declining discount rate instead of a fixed one. Do you agree that a declining discount rate would be more accurate?
c. Do you have an opinion on what the discount rate value should be used for inter-generational impacts?

[23] Interagency Working Group on Social Cost of Greenhouse Gases, *Technical Support Document*, pp. 15–16.

d. Why should one generation discount the impact of harms upon another generation at all?

As directed by Executive Order 13783, when federal agencies monetize the value of changes in greenhouse gas emissions resulting from regulations, including the consideration of appropriate discount rates, they must comply with OMB Circular A-4. OMB Circular A-4 embodies the best practices for conducting regulatory cost-benefit analysis. Circular A-4 provides instructions for federal agencies to apply estimates using both 3 and 7 percent discount rates in regulatory analysis. In accordance with the Executive Order and Circular A-4, EPA's recent estimates of the social cost of carbon apply a 3 and 7 percent discount rate.

189. Is it appropriate for a cost-benefit analysis to consider the harm caused in other countries from pollution emitted in the United States? If not, please explain why.

EPA typically undertakes cost-benefit analyses for regulatory activities using OMB guidance outlined in circular A-4. Circular A-4 requires that analysis be focused on benefits and costs that accrue to citizens and residents of the United States; however, it does allow for the separate reporting of affects beyond U.S. borders. Therefore, the Agency can look at pertinent information on externalities beyond US jurisdictions depending on the particular circumstances, including statutory authority and other direction from Congress.

190. What projects, both domestically and internationally, are EPA staff and contractors engaged in to combat marine debris?

The EPA is engaged in a number of activities to combat marine debris both domestically and internationally. Some of our most extensive involvement is leading the Trash Free Waters (TFW) program, where we support—in partnership with many stakeholders—a broad range of activities from source reduction to clean-up. EPA's Office of Water is also addressing marine debris through regulatory programs such as the Clean Water Act 303(d) Listings for Trash Impairment, National Pollution Discharge Elimination System (NPDES) stormwater permits for trash, and the development of a trash Total Maximum Daily Load (TMDL). Under the Resource Conservation and Recovery Act, WasteWise promotes use and reuse of materials more productively over the entire life-cycle, the WRAP Program is helping to recycle plastic films, and EPA is developing a waste management guidance tool that would also be useful as a resource for developing countries.

EPA advances marine litter solutions through an international program modeled on our domestic TFW program, and is pursuing collaborations with Jamaica, Peru and Panama. EPA also works with the United Nations Caribbean Environment Program, focused on reducing land-based sources of marine pollution, including in the Gulf of Mexico and the wider Caribbean region and provides expertise to the United Nations

Environment Program (UNEP) on developing practical solutions to address the sources of marine litter. In December, EPA participated in the Second Meeting of the Ad Hoc Open Ended Expert Group (AHOEEG) on Marine Litter and Microplastics, which included over 300 attendees, with 40 governments and robust representation from industry and NGOs. The outcome document will be part of this March's United Nations Environment Assembly (UNEA) agenda, where EPA will again have a leadership role.

EPA coordinates our international work with NOAA and the Department of State. Additional details regarding these efforts are available on our website: https://www.epa.gov/trash-free-waters.

191. Is EPA undertaking any studies or analyses investigating the public health risks of microplastics, microfibers, and other plastic waste?

Yes, EPA and our federal partners are engaged in numerous studies and analyses to develop standardized methodologies and data for plastics research and to evaluate the potential impact that exposure to microplastics and nanoplastics, including microfibers, and other plastic waste might have on public and environmental health, domestically and internationally.

192. What opportunities exist through the EPA's Clean Water Act and/or Resource Conservation and Recovery Act authorities to improve waste management, study and mitigate the effects of plastic waste pollution in waterways and the ocean, and support waste reduction, improved recycling, and cleanup efforts?

The EPA is engaged in a number of activities under the Clean Water Act, the Resource Conservation and Recovery Act, and other statutes to combat marine debris both domestically and internationally. Significant regulatory mechanisms exist to prohibit the discharge of pollutants that could harm human health and the environment domestically. One of our more effective programs in this context involves our collaborative Trash Free Waters (TFW) program where we support, in partnership with many stakeholders, a broad range of activities from source reduction to clean-up. EPA has expanded TFW internationally to Peru and Jamaica and is in the process of expanding to Panama. EPA is also exploring opportunities to expand to the Asia-Pacific region; five countries in Asia contribute 60% of the global marine litter volume, impacting ocean health worldwide, and US waters and industries.

193. Does EPA require any additional authorities to export its technical expertise and best practices to foreign partners and priority countries in need of assistance in improving its waste management practices to minimize marine debris?

    a. Can EPA currently undertake its own bilateral discussions, or must it go through the State Department or USAID to develop these relationships?

EPA provides expertise on marine litter in bilateral and multilateral engagements. Although we may undertake activities directly, we coordinate closely with State Department, USAID, and NOAA on such engagements. The extent of engagement is constrained by available resources, rather than legal authority. The Save Our Seas Act funds the Marine Debris Program at NOAA. There is no dedicated funding for EPA's international marine debris work.

194. When approving chemicals and other components or end plastic products, does EPA currently consider the longevity of those materials in the environment and the potential harm they can cause as they degrade?

In its review of new and existing chemical substances, EPA investigates what happens to a chemical over time once it is in the environment. In this review, EPA evaluates reasonably available information not only with regard to the specific chemical substance under review but also any substances into which the chemical breaks down to or transforms into once it enters the environment or biological systems. In some cases, such as existing chemicals that have been relatively well studied, EPA may be able to use experimental or monitoring data to understand what happens to a chemical once it enters the environment and how long it stays there. Generally, for new chemical substances, EPA uses modeling based on the chemical's physical-chemical properties and/or information known about the behavior of structurally similar chemical substances.

195. Does EPA regularly participate in the Interagency Marine Debris Coordinating Committee? If so, who attends from EPA?

Yes, EPA does participate in the Interagency Marine Debris Coordinating Committee. EPA's Office of Water representatives regularly participate with the Coordinating Committee.

196. What role have you personally and as a representative of the U.S. taken in international, multilateral gatherings, like the G7, G20, ASEAN, UNEP, and other summits, to make marine debris a priority topic? Have any new partnerships, agreements, or knowledge exchanges come out of these meetings?

I represented the United States at the 2018 G7 Environment Ministers Meeting in Halifax, Canada on September 19th and 20th where I spoke in support of action to address marine debris and joined the rest of the G7 in launching the G7 Innovation Challenge to Address Marine Plastic Litter. In 2019, I plan to continue to represent U.S. government views on marine litter at high level meetings such as the G7 and G20 Environment Ministers Meetings.

197. In May 2015, EPA released a 423-page technical support document outlining the legal and scientific basis for the agency's Clean Water Rule. Will EPA release a similar document to support its legal reasoning behind the agency's new proposed "Waters of the U.S." definition, especially given the definition depends solely upon Justice Scalia's opinion in *Rapanos*, a position without judicial precedent?

The preamble to the proposed rule, a resource and programmatic assessment, and detailed economic assessment were made available to the public on the EPA's website on December 11, 2018, the date the proposed rule was signed.

198. Will EPA extend the comment period on its new proposed definition of "Waters of the U.S." given the partial government shut down? If so, for how long and when will this be announced?

The proposed rule has yet to be published in the Federal Register, but the public has had access to the proposed rule, the economic assessment and related supporting documentation since December 11, 2018. The EPA and the Department of the Army will evaluate requests for extending the comment period after the proposed rule has been published in the Federal Register.

199. Why was only one listening session scheduled? How was Kansas City, KS selected as the site of this one listening session?

The EPA and the Department of the Army intend to hold a public hearing in Kansas City, Kansas, regional state and tribal engagements in Savanah, Georgia and Santa Fe, New Mexico, and a series of webinars and other stakeholder engagement meetings throughout the comment period. Kansas City was selected for the public hearing based on its central location, access to a major international airport, and available support staff from both the EPA and the Army Corps of Engineers given the location of an EPA Regional Office and Corps District Office in Kansas City.

200. Has EPA revisited its estimate of the benefits of wetland mitigation since its June 2017 economic analysis for the proposed definition of "Waters of the U.S."? If not, does it have plans to do so before the rule is finalized?

The EPA and the Department of the Army performed a comprehensive economic assessment of the proposed rule entitled "Revised Definition of 'Waters of the United States,'" signed on December 11, 2018, including an evaluation of wetland benefits and other relevant factors. The draft economic analysis and a corresponding draft resource and programmatic assessment are both available on EPA's website at https://www.epa.gov/wotus-rule/step-two-revise.

Senator Wicker:

201. Under the Clean Water Act, EPA has jurisdiction over the discharge of substances into a water of the United States. As such, the agency has oversight of offshore aquaculture projects, along with other agencies such as the U.S. Army Corps of Engineers and NOAA. Will you commit to working with the agencies that are responsible for regulating offshore aquaculture to ensure that this industry has greater regulatory certainty in federal waters?

The EPA is currently working with, and will commit to continuing our work with, the U.S. Army Corps of Engineers, NOAA, and other agencies to provide greater regulatory certainty for the aquaculture industry.

202. The Pesticide Registration Improvement Act (PRIA) was first enacted in 2004 to provide dedicated funds to EPA to evaluate the safety and efficacy of antimicrobials, sanitation products, and pesticides. This legislation has been reauthorized twice by unanimous consent or voice votes in the House and Senate, which indicates that there is strong bipartisan support and a lack of controversy for this statute. However, the most recent reauthorization failed to reach the President's desk before the end of the 115th Congress.

a. How important is PRIA to EPA's mission?
b. If Congress does not reauthorize PRIA, what will the impact be on EPA staffing and budgets? What will the impact be on manufacturers of these products whose EPA registration is effectively a license to operate?

PRIA provides approximately 33 percent of the funding for EPA's pesticide program activities. Under the third iteration of the statute, PRIA provided two funding sources to EPA's pesticide program:

- **One-time registration service fees (i.e., PRIA fees) for the evaluation of new applications submitted to the EPA; and**
- **Annual FIFRA maintenance fees assessed to products currently in the marketplace, a significant portion of which are used to support the re-evaluation**

of pesticides in order to meet the statutory deadline of October 1, 2022, for completing the first round of registration review.

PRIA's authorization expired on December 21, 2018. Because PRIA was not reauthorized or further extended, pesticide applications submitted after December 21, 2018, are no longer be subject to decision time periods. The two-year sunset provision in FIFRA section 33(m) specifies fees be reduced in fiscal year 2018 by 40 percent below the levels in effect during fiscal year 2017, and by 70 percent in fiscal year 2019. Effective September 30, 2019, fee requirements under PRIA would be terminated.

Additionally, if PRIA were not reauthorized, $2 million per year for worker protection activities, pesticide safety education programs, and partnership grants, monies that currently come from PRIA funds, would not be available and these programs would not be funded. These activities include:

- **Developing and administering a pesticide safety training program that will support a national network of pesticide safety trainers providing worker safety training to migrant and seasonal farmworkers and their families (National Farmworker Training Program);**
- **Developing pesticide education materials for workers, handlers, and trainers on how to comply with WPS (cooperative agreement with UC-Davis and Oregon State University); and**
- **Supporting National Pesticide Information Center (NPIC), a bi-lingual, factual source of information for professional and public audiences on pesticide-related issues.**

PRIA provides predictability and regulatory certainty to all stakeholders regarding the timing of pesticide registration decisions. In the absence of PRIA, the statutory timelines would no longer exist and applications to register new pest control tools would be reviewed as resources were available. However, EPA would not be in a position to guarantee a registration decision timeline with any certainty. Farmers in need of new pest control tools could be significantly impacted as they may not be able to timely adopt new technologies to address their pest management needs.