

Message

From: Rachel Jones [RJones@nam.org]
Sent: 5/18/2018 5:37:06 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: Ex. 6 Resume
Attachments: MAIN RESUME #2018.docx

Flag: Follow up

Will—

I met this young man through my old Law School. We have corresponded a number of times and he seems smart, eager, and willing to work hard. He's available from July through Mid-August.

If you haven't found all your interns for the summer just yet, I'd recommend giving Ex. 6 a call.

Hope you have a great weekend!

Rachel Jones

Ex. 6

From: Ex. 6 >
Sent: Friday, May 18, 2018 11:11 AM
To: Rachel Jones <RJones@nam.org>
Subject: Ex. 6 Resume

I have attached my current resume. Still waiting on second semester grades and confirmation that I qualified for ELJ.

Thanks again for your time. Have a great weekend.

Best,

Ex. 6

Message

From: Laura Berkey-Ames [lberkeyames@nam.org]
Sent: 5/24/2018 8:54:29 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: RE: Attendance List for Meeting on May 29
Attachments: BNEJ Comments on draft EJ 2020 Action Agenda_Clean_July28_2016.pdf

Flag: Follow up

Hi Will,

Yes, there will be one handout. In 2015, the BNEJ submitted comments on the EJ 2020 Action Agenda, and I wanted to make sure you had this for your reference – as it speaks to the BNEJ’s position on a number of issues. I will bring copies in person, but attached you will find an electronic copy.

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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From: Lovell, Will (William) <lovell.william@epa.gov>
Sent: Thursday, May 24, 2018 4:33 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Attendance List for Meeting on May 29

Thank you for this, Laura. Do you plan to provide any handouts at the meeting? If so, could you provide those ahead of the meeting?

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Wednesday, May 23, 2018 10:06 AM
To: Lovell, Will (William) <lovell.william@epa.gov>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: Attendance List for Meeting on May 29

Good Morning Will and Robin:

This email is to provide you with an attendance list for our meeting with Brittany next Tuesday, May 29 at 11 AM. In total, there will be 13 individuals (at most) attending this meeting. Their names and organization/company affiliation is provided below:

Laura Berkey-Ames, NAM
Ross Eisenberg, NAM
Mark Washko, BASF
Sue Briggum, Waste Management
Robert Kaufman, Koch
Ken Warren, Warren Environmental Counsel
Howard Feldman, API
Nick Goldstein, ARTBA
Amanda Aspatore, NMA
David Friedman, AFPM
Richard Starr, ACC
Sarah Ball, EEI
Riaz Mohammed, EEI

Please let me know if you have any questions or concerns.

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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From: Lovell, Will (William) <lovell.william@epa.gov>
Sent: Monday, May 7, 2018 4:16 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: EPA Meeting w/ Brittany Bolen re: Environmental Justice

Great! Please see logistics below. We will reach out to you closer to the date for a guest list and any handouts you plan to provide.

Best,
Will

Directions: Please use the William Jefferson Clinton North Entrance located on your right as you exit the Federal Triangle Metro Station. Please arrive 10 minutes prior to the meeting with photo ID to clear Security.

EPA Contact: For an escort from Security to the meeting call (202) 564-4332; for all other matters call Robin Kime (202)564-6587.

From: Laura Berkey-Ames [mailto:lberkeyames@nam.org]
Sent: Monday, May 7, 2018 3:32 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: EPA Meeting w/ Brittany Bolen re: Environmental Justice
Importance: High

Hi William,

Many thanks again for reaching out this morning. This email is to confirm that my group is able to meet with Brittany at 11:00 AM on Tuesday, May 29.

I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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Comments of the Business Network for Environmental Justice
on EPA's draft EJ 2020 Action Agenda

The Business Network for Environmental Justice (“BNEJ”) appreciates the opportunity to submit these comments on the Environmental Protection Agency’s (“EPA’s”) draft EJ 2020 Action Agenda (“EJ Agenda”). Based at the National Association of Manufacturers, the BNEJ is a voluntary organization of industry and trade associations interested in environmental justice (“EJ”) issues. The BNEJ believes that all people should be treated fairly under the laws and have the opportunity for meaningful participation in public processes, without discrimination based on race, color, or national origin.

OVERVIEW

On July 14, 2015, the BNEJ submitted comments on the EPA’s April 15, 2015 Draft EJ 2020 Action Agenda Framework (“Draft Framework”). The draft EJ Agenda constitutes the EPA’s revision of the Draft Framework after consideration of public comments and sets forth the EPA’s EJ strategic plan for the next five years. The BNEJ believes that the Draft Framework has been strengthened by consideration of public input. The BNEJ now offers the following comments on the draft EJ Agenda.

The BNEJ commends the EPA for the comprehensiveness of the draft EJ Agenda and for many of its features. In particular, the EPA’s vision statement in the draft EJ Agenda recognizes the importance of all members of our nation living in sustainable, healthy communities, and that “strong partnerships” provide the foundation for achieving this vision. The BNEJ fully supports these principles. Business and industry are important partners in efforts to improve the environmental and health conditions in all communities. As an organization comprised of business and industry members interested in cooperative engagement with other stakeholders, the BNEJ looks forward to participating as partners with the EPA in pursuit of the EJ Agenda’s laudable vision and the fair administration of environmental laws.

One impediment to providing useful substantive comments on the EJ Agenda is the lack of complete detail regarding how its ambitious goals will be implemented. The many concepts mentioned in the EJ Agenda, although clarified through actions, strategies and measures, frequently do not provide a sufficient blueprint to inform commenters how they will be applied. For example, steps appropriate for voluntary, cooperative decision-making may be inappropriate if embodied in mandatory rules, permit conditions or enforcement measures. Likewise, the resources and funding required may vary greatly depending on how the concepts in the Agenda will be applied. The absence of a detailed implementation plan, accompanied by an outline of the necessary staff resources and funding, hampers the ability of all stakeholders to provide fully the meaningful comment that the EPA seeks.

As is the case with most draft plans published for public comment, there are opportunities for improving the draft EJ Agenda to sharpen its focus and enhance its consistency, thereby increasing opportunities to achieve its mission. Since many of the BNEJ’s comments are

applicable to more than one section of the draft EJ Agenda, these comments are organized by topic.

Several themes appear in these comments, including the following: first, to be effective in advancing the EJ Agenda's goals, partnerships should include business and industry as essential partners and utilize collaborative processes. Second, the existing, robust community engagement strategies employed by some companies should be recognized and serve as a foundation for further efforts by those and other companies. Third, rigorous definitions and methodologies would aid the predictability and validity of an EJ analysis. Fourth, the EPA should only use sound science and high quality data. Fifth, public information concerning the regulatory compliance of facilities should be coupled with an effective and efficient process for correcting errors in the EPA's data bases. Sixth, the EPA's existing regulatory framework and standards that are protective of vulnerable communities should be utilized where applicable to the action or stressor at issue. These and other themes are emphasized in the specific comments below.

1. The EJ Agenda should consistently emphasize the value of including business and industry in partnerships to advance EJ goals.

In the BNEJ's view, the EJ Agenda's emphasis on cultivating strong partnerships provides a sound foundation for achieving its EJ goals. Embracing business and industry as an important stakeholder is vital to forming effective partnerships. Businesses play an essential role in the economic health of the community. A sustainable community is in part one that provides employment to its members and, in turn, supports the businesses providing jobs. Many businesses actively engage with the communities in which they are located and are part of the social as well as economic fabric of the community. The BNEJ believes that EPA's strategic plan should include facilitating and incentivizing even greater business participation in these partnerships wherever feasible.¹

To this end, where the goals, objectives and strategies listed in the draft EJ Agenda emphasize the importance of partnerships, in some instances business and industry are appropriately among the partners mentioned. For example, the objective for "permitting" includes collaboration with, among others, "permit applicants to identify and share tools, promising practices, and approaches." EJ Agenda at 2. Likewise, the strategy associated with community-based work includes "building stronger on-the-ground partnerships with communities and involving academia, business, philanthropy and other sectors." EJ Agenda at 3. The BNEJ strongly supports the inclusion of business and industry in these collaborative efforts. Ongoing and future partnerships that include the participation, perspective and resources of business and industry can help achieve the EJ Agenda's goals.

Although the references to business and industry cited above are very helpful, other portions of the draft EJ Agenda should be enhanced by noting the positive role business and industry can play in partnerships formed to further EJ goals. In particular, in both Goal II, EJ

¹ Providing public recognition to those businesses devoting resources to partner with communities and offering permit flexibility to businesses that address community concerns are two examples of useful incentives.

Agenda at iv (Work with Partners), and the paragraph on “Stakeholder Engagement,” EJ Agenda at 7, the EJ Agenda should add a reference to the important role of business. In designing best practices for outreach, EJ Agenda at 10, Action 4.2, the EPA should consider facilitating discussions among interested stakeholders, including business, in addition to conducting its separate outreach efforts.

In Chapter 3 (Permitting), little detail is offered on how the EPA will engage with permit applicants to share approaches for conducting enhanced outreach in communities. The EJ Agenda should reference the innovative and proactive approaches taken by some businesses to date and express the advantages of building on these lessons learned. *See, e.g.*, the EPA’s Environmental Justice Collaborative Problem-Solving Model, EPA-300-R-06-002 (June 2008) (Appendix) (describing example of business-community partnership).

Although a stated objective in Chapter 3 of the EJ Agenda is fostering collaboration in permitting, the EPA does not mention business and industry when discussing its collaboration with other stakeholders, such as the Environmental Council of the States (ECOS). *See* EJ Agenda at 12, Action 2.1. Collaboration between business and industry and state regulators provides a useful mechanism to identify or develop best or promising practices. State regulators have knowledge of how community engagement activities fit into the approaches to permitting and other activities that they conduct. Business has the experience and interest in helping to design voluntary, flexible measures for community engagement. These stakeholders working together can design voluntary measures with the flexibility necessary to adjust to the unique circumstances of each permit application and the potentially affected populations. The BNEJ recommends expressly including business in partnerships to design these measures.

Likewise, the discussion of “stakeholder partnerships” in Chapter 10, Significant National EJ Challenges, EJ Agenda at 38, would benefit from discussion of the collaborative role business has played and will continue to play in developing promising practices for community engagement and in addressing the “Challenges.”

2. The term “overburdened community” should be clarified.

The BNEJ supports the fair treatment of all people under all laws, including environmental laws, without discrimination based on race color or national origin. This is consistent with the requirements of Title VI of the Civil Rights Act of 1964, and with Executive Order 12898 (59 Fed. Reg. 7629, February 16, 1994), which emphasized that minority and low income populations should be fairly treated.

As defined in the EJ Agenda glossary, the term “overburdened community” creates confusion regarding whether the EJ Agenda seeks to address populations outside of those identified in Title VI and Executive Order 12898, and if so, whether the EPA intends to focus its rulemaking, permitting and enforcement authorities to restrict activities that may affect these populations. The BNEJ encourages the EPA to clarify the definition in order to create more certainty regarding whether a population affected by a stressor is an “overburdened community.” The following are some portions of the definition that merit revision:

- a. The EJ Agenda defines an “overburdened community” to include not only minority, low-income, tribal or indigenous populations, but also “geographic locations.” The proper focus under Executive Order 12898 is on certain “populations” affected by an activity, not on geographic locations. *See* Executive Order 12898, Section 1-1 (“[E]ach Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low income populations....”)
- b. An EJ analysis requires identification of an affected population. While the geographic location of persons exposed to a stressor may at times coincide with a “community,” at other times the potential effects may cut across communities. To assess whether “disproportionate effects” exist, *see* definition in Glossary, it is important to use scientific methodologies and rigorous exposure data gathered using sound science to identify only the affected population, not to assume that the effects of an action fall on all persons who reside within a community. Just as a “community” does not define an affected population, proximity to a source is also a poor surrogate. The Technical Guidance for Assessing Environmental Justice in Regulatory Analysis (EPA 2016) (the “EJ Technical Guidance”) states that “use of actual exposure data is generally preferred to proximity data.” EJ Technical Guidance at 50. The EJ Agenda should incorporate this principle.
- c. The draft EJ Agenda’s definition of “overburdened community” states that populations or geographic locations must “potentially experience” disproportionate environmental harms or risk. This language should be clarified to focus the analysis on exposure and actual risks, not just “potential” ones. Opening the door to “potential” risks introduces a measure of speculation and subjectivity that may lead different analysts to reach different results.
- d. The BNEJ believes that all members of the public should have a full opportunity to participate in decisions about a proposed activity. *See* definition of “meaningful involvement” in the Glossary. The definition of “overburdened community” should distinguish this interest in a fair, inclusive process, a procedural goal, from the concepts of vulnerability and susceptibility, which should be defined in the Glossary. Vulnerability involves differential exposures and preparedness of a population while susceptibility relates to the population’s biological response.² These attributes of a population, rather than procedural opportunities, determine the health and environmental effects of a stressor on that population. The definition also notes that disproportionate effects may result from “other factors” without elaborating what they may be, thereby diminishing the usefulness of the definition.
- e. Vulnerability, although undefined in the draft EJ Agenda, is a useful concept when evaluating the risk to a group of people from exposure to a stressor. However, the EPA should not automatically associate vulnerability with “lack of positive” conditions.

² *See* EJ Technical Guidance at 69.

- f. After citing to “disproportionate effects,” which is separately defined in the EJ Agenda Glossary, the definition of “overburdened community” then uses the term “disparities.” This term is not the same as “disproportionate effects” or “unequal treatment.” One purpose of analyzing an action for disproportionate effects is to determine whether a minority, low-income or indigenous population has suffered a significantly higher and more adverse health and environmental effect than a comparison (reference) group. This principle appears to be embodied in the defined term, “fair treatment.” Subject to point 8 below, the EPA may plan to consider disproportionate effects as one of many factors in evaluating the fairness of an action. In contrast, a comparison of any two populations will detect “disparities,” and be of little value in an EJ analysis. To be consistent with Executive Order 12898 and cogent EJ analysis, the EJ Agenda should employ the term “disproportionate effects” and maintain that focus throughout the EJ Agenda.
- g. The introduction of the concept of cumulative effects in the definition creates an impediment to applying it in a consistent, uniform manner. As the EPA has acknowledged, there are no established scientific methodologies for conducting cumulative risk assessments for multiple environmental stressors. *See* EJ Technical Guidance at § 4.2.4 (“The science supporting assessments of such cumulative impacts is evolving, however, and the data and analytical tools needed to develop informative, scientifically sound analyses of these effects may not be available in many cases.”). The analysis becomes even more difficult and removed from established scientific methods when attempting to assess how socioeconomic and environmental conditions interact. *See* EJ Agenda at 19.

Neither the definition of “overburdened community” nor other parts of the EJ Agenda offer quantitative or qualitative measurements to determine the degree to which cumulative effects may burden a population. Likewise, they are unclear whether “overburden” can be determined by looking only at a single community or requires a comparison to a reference group to determine whether the burdens identified fall disproportionately on minority or low income populations. Indeed, in the absence of any quantitative thresholds such as those provided in the EJ Technical Guidance at § 2.2, members of the public using the definition may come to conflicting conclusions on such basic elements as whether a population is minority or low-income, let alone when the cumulative effect of environmental and social stressors creates “overburden.” Until the science is developed, use of the concept of “overburdened community” as defined by the cumulative effects of environmental, health, social and other factors will be ad hoc and subjective, leading to uncertainty for all affected stakeholders. Therefore, until that time, reference to cumulative effects in the definition of “overburdened community” should be removed.

If EPA does not modify the definition of “overburdened community” to promote more predictable and consistent outcomes, and certainty for those who will be impacted by the actions outlined in the EJ Agenda, the BNEJ suggests that the EJ Agenda note that the definition is primarily useful as a screening tool to begin an analysis of whether minority or low income

populations as identified in Executive Order 12898 are disproportionately affected. A clearer definition and much further analysis using rigorous data, risk assessment techniques, and other scientific methods to analyze for disproportionate effects is essential when EPA's rulemaking, permitting or enforcement tools are used.

3. The EJ Agenda should consistently require application of sound science to high quality data.

The BNEJ commends EPA on the principles articulated at the beginning of Chapter 5: Science. EPA importantly notes: "At the federal and state level, high quality data, rigorous risk assessment and state-of-the-science analytical tools provide a foundation for the legal, political, health and economic decisions to protect public health and the environment in these communities." EJ Agenda at 17. The BNEJ whole-heartedly agrees with this emphasis on sound science when conducting environmental justice analyses. The BNEJ notes that this principle applies not only to protecting the health of vulnerable populations, but also to protecting all persons benefited by federal or state environmental requirements.

The BNEJ is concerned, however, with the EJ Agenda's willingness to deviate from the rigorous scientific approach when offering tools to communities. In particular, the EJ Agenda notes: "Cumulative impact assessment may involve the use of more qualitative or semi-quantitative information, and may be particularly useful to communities for identifying and prioritizing problems." EJ Agenda at 17. In reality, cumulative impact assessments conducted without the scientific rigor of a risk assessment may result in mistaken conclusions concerning risk, demands for actions that are not directed to actual risks, misdirection of limited resources toward perceived but not actual risks, and disillusionment by community members when reductions in perceived risks do not result in actual health benefits. Tools such as next generation monitoring and citizen science may suffer from the same lack of scientific rigor when not undertaken by trained individuals following scientific protocols. While EPA tools under development such as the Community-Focused Exposure and Risk Screening Tool (C-FERST) may provide some information useful for assessing cumulative impacts, as discussed in item 2.g above, EPA has acknowledged that further scientific research is needed. Great caution should be taken in promoting use of tools that have not been shown to be scientifically valid for decision making by communities or others, and tool output should be clearly identified as screening results and not necessarily representative of risk.

4. Increased EPA compliance activity should be focused on activities that present a greater risk.

The EJ Agenda includes EPA's plan to increase compliance evaluations of facilities and activities that impact vulnerable populations. EJ Agenda at 14. The EJ Agenda does not, however, suggest how the compliance targets should be selected.

The BNEJ believes that EJ analysis should identify any disproportionate effects on vulnerable populations, not potential disparities. Current tools utilized by EPA do not focus on actual risk and therefore should be used only as starting points for an EJ analysis. For example, the BNEJ commends EPA on developing EJSCREEN as a publicly available tool that integrates various national data sets. By making multiple indicators available to define vulnerable and susceptible populations, EJSCREEN can serve as a useful tool to begin the process of identifying the demographics of populations who may be exposed to stressors. In places, however, the EJ Agenda appears to afford more weight to EJSCREEN than is appropriate for a screening tool. *See, e.g.*, EJ Agenda at 16, Actions 2.2 and 2.3 (using EJSCREEN for enforcement purposes) and at 45 (reports on RCRA Corrective Action Program and Superfund Remedial Program facilities based on EJSCREEN).

The EJ Agenda should explicitly note the limitations of EJSCREEN. As the EPA has recognized in the context of explaining the tool, EJSCREEN does not perform a comprehensive risk assessment, does not purport to identify EJ communities, uses screening indicators that may not show actual exposure, uses data that may not be current and is limited by the availability of national data sets that may not examine the route of exposure at issue for a particular population such as drinking water quality. *See* EPA EJSCREEN Webinar. In addition, depending on the thresholds that the user of the tool selects for each of the indicators, EJSCREEN may be over-inclusive in defining an affected population, thereby misdirecting attention and resources away from the most vulnerable populations. EJSCREEN can be most useful as a screening tool to examine demographic information and whether a risk assessment or other scientifically valid evaluation should be performed to determine actual exposures and effects.

The absence of tools that provide more than a screening function presents an obstacle to EPA's plan to identify the 100 most overburdened communities. In part because EJSCREEN does not validly measure actual risks, it is not capable of prioritizing sites in a scientifically valid and reproducible manner. Community advocates as well as other stakeholders are likely to identify different communities as priorities. Absent a valid scientific methodology for selecting the 100 most overburdened communities, the selection process may become politicized. Risk assessments would provide a better basis for prioritization, but as discussed above, even they cannot account for the cumulative relationship of all environmental and social stressors.

The BNEJ recommends that when discussing EPA compliance activities, the EJ Agenda note that the EPA's Office of Enforcement and Compliance Assurance has flexibility to assist companies in meeting the requirements of complex regulatory programs, not merely to pursue enforcement actions when violations allegedly occur. Particularly when alleged violations have caused little if any adverse effect, the EPA should carefully examine whether appropriate allocation of resources favors use of compliance assistance tools.

Chapter 4, Action 1.3 in the draft EJ Agenda states a “goal of increasing the number of SEPs [supplemental environmental projects] and mitigation projects affecting overburdened communities.” The BNEJ agrees that in appropriate circumstances, voluntary SEPs can play a helpful role in addressing conditions to which vulnerable populations are exposed. In many instances, the most effective actions that can be taken to improve the health and environmental conditions in communities are those identified through collaborative efforts of stakeholders. For example, communities may benefit most from services and programs tailored to that community’s specific needs. Actions such as these, when not required by law, depend upon voluntary participation by stakeholders. Under some circumstances, companies may view a SEP as an opportunity to improve community conditions, enhance relationships with community members and improve the company’s reputation while resolving an enforcement matter. The BNEJ encourages the EPA to work with targets of enforcement actions and communities to identify and promote SEPs when appropriate in the context of a particular proceeding and ensure that the SEPs selected benefit communities.

5. The EJ Agenda would be enhanced by citing and conforming to certain portions of the EJ Technical Guidance.

In June, 2016, the EPA issued the final EJ Technical Guidance. The draft EJ Agenda, developed before the final EJ Technical Guidance was issued, cites to and notes the importance of completing the EJ Technical Guidance. The final EJ Technical Guidance incorporates some of the comments submitted by the BNEJ and other members of the public and EPA’s Science Advisory Board on the draft EJ Technical Guidance. The EJ Agenda would be improved by adherence to certain portions of the EJ Technical Guidance, notwithstanding the BNEJ’s concerns regarding other portions.

In particular, the EJ Technical Guidance appropriately rejected a “one-size-fits-all” approach to EJ analysis. Instead, it recommended utilizing a screening analysis to identify the extent to which a regulatory action may raise potential EJ concerns and what level of analysis is feasible and appropriate. EJ Technical Guidance at 1. The EJ Technical Guidance discusses “feasible” in terms of the availability and quality of data, and “appropriate” in terms of relevant policy, budgetary and statutory considerations. EJ Technical Guidance at 3.2. This principle should be extended to all actions contemplated by the EJ Agenda.

Based upon a recommendation by the EPA’s Science Advisory Board for clearer use of defined terms, the EJ Technical Guidance sets forth clearer definitions and uses them throughout the guidance. The EJ Agenda would likewise benefit from greater definitional clarity. For example, the definitions of “population group of concern highlighted in E.O. 12898,” EJ Technical Guidance at § 2.2, and glossary terms such as “vulnerability” and “susceptibility,” *id.* at 69, promote consistency in identifying populations that are the focus of Executive Order 12898. Even if the EPA chooses to modify the thresholds or other features of these definitions, they can guide the EPA in revising the EJ Agenda Glossary to allow more predictable outcomes when evaluating when an action may raise EJ concerns.

As discussed above in paragraph 2.g., the EJ Technical Guidance also recognizes the data and methodology limitations in applying cumulative risk assessment discussed above. *See, e.g., id.* at §§ 4.2.4 and 5.2.3. The BNEJ recommends that the EJ Agenda cite to the Technical Guidance as a reason to put a “placeholder” on routine use of cumulative risk in EJ analysis until the science is sufficiently developed.

A shortcoming of both the EJ Technical Guidance and the EJ Agenda is the absence of consideration of the EPA’s decades of standard-setting activity during which the EPA has considered the risk to human health, including vulnerable populations. The EPA has established a protective regulatory framework for many pollutants using conservative assumptions and safety factors, and businesses have taken aggressive steps to comply with these standard for several decades. In considering impacts of pollutants on vulnerable populations, the EJ Agenda should emphasize the utility of relying on standards EPA has already established through rulemaking.

Likewise, neither the EJ Technical Guidance nor the EJ Agenda explains how social or personal responsibility factors should be considered when defining a population affected by an activity or evaluating the degree of risk to the exposed population. The draft EJ Agenda would benefit from consistently emphasizing that regulatory decisions must be based on scientifically valid data and methods.

6. The BNEJ recommends that EPA provide opportunities to correct any errors in information that EPA discloses to the public.

The BNEJ favors transparency and recognizes that at times information concerning emissions and discharges from a facility, and the facility’s compliance history, may assist persons to assess the potential risk posed by the facility. The EPA’s Enforcement and Compliance History Online (ECHO) database is an example. *See* EJ Agenda at 16, action 3.2. However, inputs to the ECHO database are at times incorrect or incomplete, and requests to correct erroneous information are sometimes met with bureaucratic inertia. Misinformation is unfair to and damages the regulated entity and may do community members more harm than good. Accordingly, the BNEJ recommends that the EJ Agenda expressly recognize that a mechanism to correct errors in publicly available data base information is an important component of any public dissemination policy. The EJ Agenda should specify as a measure of success of public disclosure the promptness in which errors in the database are corrected when brought to EPA’s attention.

7. The BNEJ supports efforts to build the capacity of communities and promote community engagement.

The BNEJ supports community capacity building and urges the EPA to note industry leadership in community engagement. As an organization committed to informed dialogue among citizens, the BNEJ supports the application of available resources to build the capacity of vulnerable populations. Outreach, technical assistance and grants, and training are all important components of a capacity-building program that will enable vulnerable populations to

meaningfully participate in EPA decision making processes and collaborative efforts with business and industry and others to build and sustain healthy communities.

The draft EJ Agenda should note industry leadership in community engagement. EPA has elsewhere stated:

Industrial facilities are important members of the communities in which they are located. In addition to their important role as a source of employment and economic stability within a community, facilities play other roles. Many facilities, for example, have robust community engagement strategies that recognize the value of community outreach. Pursuant to these strategies, facilities engage actively with the community through environmental initiatives, neighborhood beautification projects, education programs and charitable giving, civic programs and the arts, youth activities, and other investments in communities. Indeed, many companies and public authorities embody these principles in their mission statements, using words and phrases like collaboration, respect, and building mutually beneficial relationships. Some even aspire to measure their own success by the success of their customers, shareholders, employees and communities. In short, a corporate culture has emerged in this Nation that values and actively promotes community partnerships.³

The BNEJ requests that a similar description of the proactive role taken by many businesses to work closely with communities be expressed in the EJ Agenda.

8. A collaborative process is the best mechanism to address most civil rights complaints.

The draft EJ Agenda states: “Where possible, EPA seeks to address the concerns of the affected communities outside of the civil rights enforcement process as an important component of the Agency’s efforts to make a prompt and visible difference in communities.” EJ Agenda at 6. The BNEJ supports this statement and EPA’s focus on developing tools that may bring people together to reach long-term solutions to civil rights problems. The BNEJ believes that EPA’s Environmental Justice Collaborative Problem-Solving Model cited above provides a useful approach to collaborative decision making and suggests that EPA emphasize the usefulness of this Model in the EJ Agenda.

The goals of Title VI and other federal civil rights statutes are consistent with the principle that the BNEJ supports: all people should be treated fairly under all laws, including environmental laws, without discrimination based on race, color or national origin. As discussed above, determining whether an impact is harmful and disproportionately affects vulnerable populations requires sufficient valid data and a scientifically-valid methodology for assessing risk, defining the affected community and comparing the demographics of affected and

³ “EPA Activities to Promote Environmental Justice in the Permit Application Process,” 78 Fed. Reg. 27220, 27228 (May 9, 2013).

comparison (reference) communities. In addition, disparate impact alone is not proof of discrimination – Title VI requires equal treatment, not equal environmental results.⁴ Under these circumstances, resolving civil rights concerns in the first instance through use of the collaborative problem-solving model with full participation of vulnerable populations, government, business and industry and other affected persons would best serve the purposes of civil rights laws.

9. Building community capacity to adapt to any changes in climate conditions should focus on building knowledge and resiliency.

The draft EJ Agenda appropriately focuses on building sustainable and resilient communities as a response to stressors, including any that may result from increases in atmospheric greenhouse gas concentrations. *See, e.g.*, EJ Agenda at 7. Working toward healthy communities for all populations is an important goal. One specific element of concern, however, is the provision in the draft EJ Agenda for “training the next generation of young climate justice leaders.” It is unclear whether the EPA intends to target this effort on capacity building to participate in environmental decision making, or to inappropriately enter the realm of political advocacy. The BNEJ suggests that this goal be clarified to avoid any implication that the EPA intends to train youth to become political advocates rather than knowledgeable community participants in collaborative efforts to reduce or adapt to stressors.

10. Informal communications may provide valuable community input, but serve as an enhancement of, not substitute for, the rulemaking process.

The BNEJ supports the EPA exploring informal ways to promote meaningful community involvement in rulemaking. *See* EJ Agenda at 10, Action 4.1. It is important for the EJ Agenda to note, however, that informal communications do not substitute for the submission of comments into the rulemaking administrative record upon which agency decisions are made and reviewed. The EJ Agenda should emphasize the importance of all stakeholders submitting formal comments through the rulemaking process and encourage community members to do so regardless of any informal communications in which they may have participated.

11. Environmental monitors are appropriate enforcement objectives only in limited circumstances.

The draft EJ Agenda views environmental monitors as an important component of enforcement settlements. EJ Agenda at 16. The EJ Agenda establishes as a measure of its success the annual number of EPA enforcement settlements that incorporate environmental monitors. *Id.* Although environmental monitors may be appropriate as part of enforcement settlements in limited circumstances, the BNEJ believes that these monitors are inappropriate in many other situations. Where monitors are unlikely to provide meaningful, accurate data, they can mislead rather than improve community members’ understanding of their environments. In addition, to be of use to potentially affected populations, accurate monitoring data must be coupled with resources to educate the affected population regarding the overall context of the monitoring and

⁴ *Alexander v. Sandoval*, 532 U.S. 275 (2001).

the specific relationship of the monitoring results to community health or environmental quality. Those resources are not always available or correctly deployed. As such, the number of times monitors are required in settlements is not a useful measure of success of an EJ enforcement program.

Thank you for the opportunity to submit these comments.

Message

From: Laura Berkey-Ames [lberkeyames@nam.org]
Sent: 4/27/2018 4:00:45 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]; Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: RE: Meeting Request re: Environmental Justice

Excellent! Thank you!

From: Lovell, Will (William) <lovell.william@epa.gov>
Sent: Friday, April 27, 2018 12:00 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>; Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Laura,

Please see logistics below.

Best,
Will

Directions: Please use the William Jefferson Clinton North Entrance located on your right as you exit the Federal Triangle Metro Station. Please arrive 10 minutes prior to the meeting with photo ID to clear Security.

EPA Contact: For an escort from Security to the meeting call (202) 564-4332; for all other matters call Robin Kime (202)564-6587.

From: Laura Berkey-Ames [mailto:lberkeyames@nam.org]
Sent: Friday, April 27, 2018 11:41 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Sounds great. Thank you!

From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Friday, April 27, 2018 11:40 AM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Lovell, Will (William) <lovell.william@epa.gov>
Subject: Re: Meeting Request re: Environmental Justice

Hello,
Sure, let's plan on it. I'll ask Will here to send you logistics (thanks Will). See you then.

On Apr 26, 2018, at 4:36 PM, Laura Berkey-Ames <lberkeyames@nam.org> wrote:

Hi Robin,

I would like to CONFIRM (yay!) that the group is good to meet on May 29 at 2 PM.

Please let me know if this works. I look forward to hearing from you.

Regards,
Laura

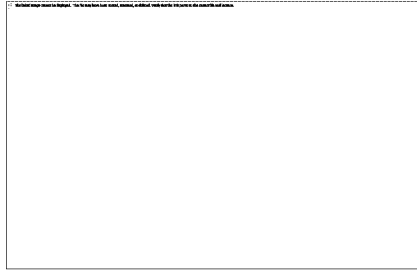
Laura Berkey-Ames

Director, Energy and Resources Policy

National Association of Manufacturers

Email: iberkeyames@nam.org

Direct: **Ex. 6**



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From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Thursday, April 26, 2018 3:55 PM
To: Laura Berkey-Ames <iberkeyames@nam.org>
Subject: RE: Meeting Request re: Environmental Justice

Absolutely – we completely understand and that day won't fill up for a few days, you have some time to sort things out.

From: Laura Berkey-Ames [<mailto:iberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 3:54 PM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Let me double check and I will be back in touch – thank you for your patience!!

From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Thursday, April 26, 2018 3:31 PM
To: Laura Berkey-Ames <iberkeyames@nam.org>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi
Totally understood!
What works for you on May 29 from 10 – 3 (excluding 12-1 pls)?

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 3:21 PM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Robin,

You will have to forgive me. I am trying to coordinate this meeting to ensure that three key coalition members can attend and their schedule just changed slightly.

Any chance there would be an afternoon time slot available on May 10, 11, or 14 or 29? I apologize for making this so tricky.

If May 22 at 1 PM is our best bet, I will stick with that. Please let me know your thoughts as soon as you are able.

Laura

From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Thursday, April 26, 2018 9:50 AM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Thanks,
How about 5/22 at 10:00 or 10:30 or 1:00?

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 9:10 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Robin,

With regards to May 15—I literally just got pulled into an in-house meeting that I must attend. Is there another time in the afternoon of the 18, 21, or 22 that she might be free?

Laura

From: Kime, Robin <Kime.Robin@epa.gov>
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Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Laura,

Would May 15 at 1:30 or 2:30 or 3:00 work? We will email you confirmation and logistics and will appreciate it if you send us read-ahead material and the attendee list 3 days prior to the meeting. Much appreciated.

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 8:49 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Brittany: Thank you for the quick response! I very much look forward to meeting with you in the near future.

Carolyn and Robin: Please let me know what time(s) Brittany would be available for the dates provided in the email below. However, if we could meet earlier in the month, that would be ideal. I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



[NAM Facebook](#) | [Twitter](#) | [Instagram](#) | [LinkedIn](#)

From: Bolen, Brittany <bolen.brittany@epa.gov>
Sent: Wednesday, April 25, 2018 7:39 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Laura,
Thanks for your email. I'd be happy to meet with your members on EJ issues. Please work with Carolyn Inge and Robin Kime (cc'd) on scheduling.
Brittany

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Tuesday, April 24, 2018 11:13 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: Meeting Request re: Environmental Justice
Importance: High

Hi Brittany:

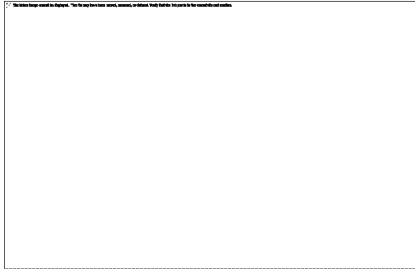
This email is to request a brief meeting with you to discuss the NAM's involvement with environmental justice (EJ) issues. For years we have run the Business Network for Environmental Justice Coalition and I would love to have the opportunity to introduce members of the coalition to you, as well as discuss our EJ priorities prior to the first (teleconference) meeting of the National Environmental Justice Advisory Council which is scheduled to occur at the end of May.

The group's availability is fairly flexible next month, and the days we are available in May are as follows: 10 and 11, 14 and 15, 18, 21 and 22, 25, 29, 30 and 31.

I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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Message

From: Laura Berkey-Ames [lberkeyames@nam.org]
Sent: 4/27/2018 3:40:33 PM
To: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
CC: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: Meeting Request re: Environmental Justice
Flag: Follow up

Sounds great. Thank you!

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Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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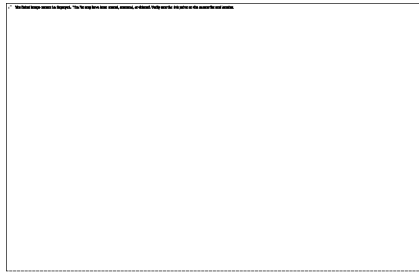
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Carolyn and Robin: Please let me know what time(s) Brittany would be available for the dates provided in the email below. However, if we could meet earlier in the month, that would be ideal. I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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From: Bolen, Brittany <bolen.brittany@epa.gov>
Sent: Wednesday, April 25, 2018 7:39 PM
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Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

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Brittany

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Sent: Tuesday, April 24, 2018 11:13 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: Meeting Request re: Environmental Justice
Importance: High

Hi Brittany:

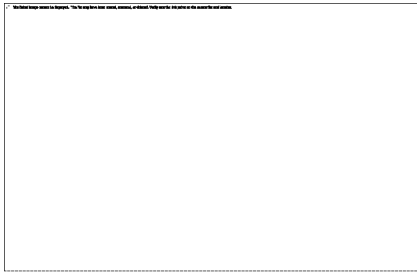
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I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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Message

From: Laura Berkey-Ames [lberkeyames@nam.org]
Sent: 5/7/2018 8:17:07 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: RE: EPA Meeting w/ Brittany Bolen re: Environmental Justice

Wonderful, thank you!

From: Lovell, Will (William) <lovell.william@epa.gov>
Sent: Monday, May 7, 2018 4:16 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: EPA Meeting w/ Brittany Bolen re: Environmental Justice

Great! Please see logistics below. We will reach out to you closer to the date for a guest list and any handouts you plan to provide.

Best,
Will

Directions: Please use the William Jefferson Clinton North Entrance located on your right as you exit the Federal Triangle Metro Station. Please arrive 10 minutes prior to the meeting with photo ID to clear Security.

EPA Contact: For an escort from Security to the meeting call (202) 564-4332; for all other matters call Robin Kime (202)564-6587.

From: Laura Berkey-Ames [mailto:lberkeyames@nam.org]
Sent: Monday, May 7, 2018 3:32 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: EPA Meeting w/ Brittany Bolen re: Environmental Justice
Importance: High

Hi William,

Many thanks again for reaching out this morning. This email is to confirm that my group is able to meet with Brittany at 11:00 AM on Tuesday, May 29.

I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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Message

From: Lauren Wilk [lwilk@aluminum.org]
Sent: 3/6/2018 2:51:32 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: Re: Meeting w/EPA
Flag: Follow up

Hi, Will. A quick FYI that Heidi Brock is detained at the office with late-breaking developments on the 232 remedy — but the rest of us are here now.

Lauren Wilk
The Aluminum Association

Ex. 6

On Mon, Mar 5, 2018 at 4:20 PM -0500, "Lauren Wilk" <lwilk@aluminum.org> wrote:

Hi, Will. Attached here are copies of the Association's 2017 comments to both EPA and the Commerce Department outlining the environmental and regulatory priorities that could help the U.S. aluminum industry (and the broader manufacturing sector) improve its competitiveness. All of the topics that we'll be covering tomorrow are included in these comments, and copies of these will also be in the "leave behind" folder that we're bringing.

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T: **Ex. 6** C: **Ex. 6** F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Monday, March 05, 2018 3:15 PM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Thank you, Lauren. The only additional information that would be helpful is those documents you are pulling together. It'd be helpful if Samantha could review those before the meeting.

From: Lauren Wilk [mailto:lwilk@aluminum.org]
Sent: Monday, March 5, 2018 12:40 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Hi, Will. Apologies for the delayed reply – our office was closed on Friday as well.

Our expected attendees for tomorrow:

- Ken Willings, Senior Vice President, Health, Safety & Environment, Aleris (and Chair of the Aluminum Association's Environmental Policy Committee).
- Kathy Martin, U.S. Environmental Manager, Alcoa
- Heidi Brock, President & CEO, Aluminum Association
- Lauren Wilk, Vice President, Policy & International Trade, Aluminum Association
- Curt Wells – Senior Director, Regulatory Affairs, Aluminum Association

We'll have some documents to share, and we're still putting those all together. In terms of the topics, though, we'd like to give Samantha an overview of the Aluminum Association as well as the industry's environmental priorities (air, water, TSCA, mobile source GHG regulations, NSR, WOTS, CPP). Let me know if you need additional information or background.

Best,

Lauren



Lauren Wilk

Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T: Ex. 6 | C: Ex. 6 | F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Friday, March 02, 2018 9:44 AM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Good morning, Lauren,

I wanted to check to see if you had a final list of attendees and any materials they plan to leave behind.

Thank you,
Will

From: Lovell, Will (William)
Sent: Wednesday, February 7, 2018 11:32 AM
To: 'Lauren Wilk' <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

There's no limit, we'd just need a bigger room if the group was larger than 12. 6-8 should work fine! I'll send the invite now.

From: Lauren Wilk [mailto:lwilk@aluminum.org]
Sent: Tuesday, February 6, 2018 8:44 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Thanks, Will. Let's do 10am on March 6. I'd like to invite a few member companies to join, so I'm curious if there's a limit on participants – would 6-8 attendees be workable?

Much appreciated!

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T Ex. 6 C Ex. 6 F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Friday, February 02, 2018 2:27 PM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Ideally...

- <!--[if !supportLists]--><!--[endif]-->On March 1, they could do 10 am - 2:30 pm or after 4 pm.
- <!--[if !supportLists]--><!--[endif]-->On March 6, they could do 10 am, or after 1 pm.

From: Lauren Wilk [mailto:lwilk@aluminum.org]
Sent: Friday, February 2, 2018 12:24 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Hi, Will. I'm aiming for March 1 or March 6 – is there a specific time on either of those dates that would work best?

Thanks so much!

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T Ex. 6 C Ex. 6 F 703.358.2961

JOIN THE CONVERSATION:     

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]
Sent: Thursday, February 01, 2018 2:05 PM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

How about any of the following dates?:

- <!--[if !supportLists]--><!--[endif]-->2/6
- <!--[if !supportLists]--><!--[endif]-->Afternoon of 2/8
- <!--[if !supportLists]--><!--[endif]-->Afternoon of 2/27
- <!--[if !supportLists]--><!--[endif]-->3/1
- <!--[if !supportLists]--><!--[endif]-->3/6
- <!--[if !supportLists]--><!--[endif]-->3/9

From: Lauren Wilk [<mailto:lwilk@aluminum.org>]
Sent: Thursday, February 1, 2018 12:08 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA



Thanks, Will. Not a problem for the 7th (I know it's a bit last minute!). Are there some other dates in the next month or so that might work? Heidi Brock, the Association President & CEO is traveling from the 15th-23rd, so we might want to look at the end of the month or into early March.

Much appreciated.

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T  Ex. 6 | C  Ex. 6 | F 703.358.2961

JOIN THE CONVERSATION:     

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]
Sent: Thursday, February 01, 2018 11:29 AM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Lauren,

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Best,
Will

From: Lauren Wilk [mailto:lwilk@aluminum.org]
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Thanks for your help in getting this nailed down!

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T: **Ex. 6** | C: **Ex. 6** | F 703.358.2961

JOIN THE CONVERSATION:

From: Lauren Wilk
Sent: Thursday, January 11, 2018 3:32 PM
To: 'Lovell, Will (William)' <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Thanks so much, Will. I'd like to bring in a few member companies, as well, so I need to check a few dates internally -- I'll circle back first thing next week if that's okay with you.

Lauren



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T: **Ex. 6** | C: **Ex. 6** | F 703.358.2961

JOIN THE CONVERSATION:     

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]

Sent: Wednesday, January 10, 2018 6:06 PM

To: Lauren Wilk <lwilk@aluminum.org>

Subject: Meeting w/EPA

Good evening, Lauren,

I apologize for the delayed response in getting back to you about arranging a meeting with Samantha. Do you have any availabilities in the near future?

Thank you,

Will Lovell

Policy Advisor, Office of Policy

U.S. Environmental Protection Agency

(202) 564-5713

Lovell.William@epa.gov

Message

From: Lauren Wilk [lwilk@aluminum.org]
Sent: 3/5/2018 9:20:46 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: Meeting w/EPA
Attachments: TAA EPA Comments 051517.pdf; TAA DOC Comments 033117 Final.pdf

Hi, Will. Attached here are copies of the Association's 2017 comments to both EPA and the Commerce Department outlining the environmental and regulatory priorities that could help the U.S. aluminum industry (and the broader manufacturing sector) improve its competitiveness. All of the topics that we'll be covering tomorrow are included in these comments, and copies of these will also be in the "leave behind" folder that we're bringing.

Lauren



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The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T Ex. 6 | C Ex. 6 | F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Monday, March 05, 2018 3:15 PM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Thank you, Lauren. The only additional information that would be helpful is those documents you are pulling together. It'd be helpful if Samantha could review those before the meeting.

From: Lauren Wilk [mailto:lwilk@aluminum.org]
Sent: Monday, March 5, 2018 12:40 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Hi, Will. Apologies for the delayed reply -- our office was closed on Friday as well.

Our expected attendees for tomorrow:

- Ken Willings, Senior Vice President, Health, Safety & Environment, Aleris (and Chair of the Aluminum Association's Environmental Policy Committee).
- Kathy Martin, U.S. Environmental Manager, Alcoa
- Heidi Brock, President & CEO, Aluminum Association
- Lauren Wilk, Vice President, Policy & International Trade, Aluminum Association
- Curt Wells – Senior Director, Regulatory Affairs, Aluminum Association

We'll have some documents to share, and we're still putting those all together. In terms of the topics, though, we'd like to give Samantha an overview of the Aluminum Association as well as the industry's environmental priorities (air, water, TSCA, mobile source GHG regulations, NSR, WOTS, CPP). Let me know if you need additional information or background.

Best,

Lauren



Lauren Wilk
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Arlington, VA 22202

T | C | F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [mailto:lovell.william@epa.gov]

Sent: Friday, March 02, 2018 9:44 AM

To: Lauren Wilk <lwik@aluminum.org>

Subject: RE: Meeting w/EPA

Good morning, Lauren,

I wanted to check to see if you had a final list of attendees and any materials they plan to leave behind.

Thank you,
Will

From: Lovell, Will (William)

Sent: Wednesday, February 7, 2018 11:32 AM

To: 'Lauren Wilk' <lwik@aluminum.org>

Subject: RE: Meeting w/EPA

There's no limit, we'd just need a bigger room if the group was larger than 12. 6-8 should work fine! I'll send the invite now.

From: Lauren Wilk [mailto:lwik@aluminum.org]

Sent: Tuesday, February 6, 2018 8:44 PM

To: Lovell, Will (William) <lovell.william@epa.gov>

Subject: RE: Meeting w/EPA

Thanks, Will. Let's do 10am on March 6. I'd like to invite a few member companies to join, so I'm curious if there's a limit on participants – would 6-8 attendees be workable?

Much appreciated!

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T Ex. 6 C Ex. 6 F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]
Sent: Friday, February 02, 2018 2:27 PM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Ideally...

- On March 1, they could do 10 am - 2:30 pm or after 4 pm.
- On March 6, they could do 10 am, or after 1 pm.

From: Lauren Wilk [<mailto:lwilk@aluminum.org>]
Sent: Friday, February 2, 2018 12:24 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Hi, Will. I'm aiming for March 1 or March 6 -- is there a specific time on either of those dates that would work best?

Thanks so much!

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T Ex. 6 C Ex. 6 F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]
Sent: Thursday, February 01, 2018 2:05 PM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

How about any of the following dates?:

- 2/6
- Afternoon of 2/8
- Afternoon of 2/27
- 3/1

- 3/6
- 3/9

From: Lauren Wilk [mailto:lwilk@aluminum.org]
Sent: Thursday, February 1, 2018 12:08 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

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Thank you,

Will Lovell

Policy Advisor, Office of Policy

U.S. Environmental Protection Agency

(202) 564-5713

Lovell.William@epa.gov

March 31, 2017

Submitted via www.regulations.gov

Docket No. DOC-2017-0001
Office of Policy and Strategic Planning
U.S. Department of Commerce
H.C. Hoover Building, Room 5863
1401 Constitution Avenue, NW
Washington, DC 20230

RE: Docket ID No. DOC-2017-0001 Request for Information on the Impact of Federal Regulations on Domestic Manufacturing

Dear Sir or Madam –

The Aluminum Association (the “Association”) thanks the Department of Commerce for the opportunity to provide comment on the recent *Request for Information on the Impact of Federal Regulations on Domestic Manufacturing* noticed at 82 FR 12786. The Aluminum Association, based in Arlington, VA, represents US and foreign-based primary producers of aluminum, aluminum recyclers and producers of fabricated aluminum products, as well as industry suppliers. Association member companies operate over 180 aluminum manufacturing locations across the US and the U.S. aluminum industry is a key element of the nation's manufacturing base. Strong, lightweight and recyclable, aluminum is a material uniquely suited to meet the needs and challenges of the 21st century. From increasing vehicle fuel efficiency to green building products to sustainable packaging, aluminum is well-positioned in the U.S. and global markets. A recent study highlights the importance of the aluminum industry to the U.S. economy. Today, the U.S. aluminum industry:

- Directly employs 161,000 workers and indirectly employs an additional 551,000 workers.
- Directly generates \$75 billion in economic output and indirectly generates an additional \$111 billion in economic output.
- In total, the U.S. aluminum industry supports nearly 713,000 jobs and \$186 billion in economic output, more than 1 percent of Gross Domestic Product.

- Aluminum industry jobs are high quality, advanced manufacturing jobs. Workers in the industry earn an average salary far exceeding the national average.

More specific information regarding the economic and geographic footprint of the US aluminum industry can be found at <http://www.aluminum.org/advocacy/jobs-economy> and the NAICS code for alumina and aluminum production and processing is 3313.

Additionally, since 2013 the US aluminum industry has invested over \$3 billion in new and expanded manufacturing facilities to support growth in aluminum demand, primarily in the automobile and light truck market.

The ongoing operation and expansion of facilities in a major manufacturing industry such as aluminum presents regulatory challenges that are worthy of further discussion in response to the Department of Commerce request for information. Toward that end, the Association has both requested that its member companies provide their specific input on this request for information directly to the Department of Commerce and also solicited input from its members to provide Association and industry comment more broadly. Based on the responses received from Association members through that process, the Association has the following comments on the request for information on the impact of Federal regulations/permitting on the aluminum industry:

Water Permitting – Aluminum Water Quality Criteria

The current criteria for aluminum water quality was implemented in 1988, is only applicable within a narrow pH range, and is not reflective of the current state of the science on aluminum toxicity in water. This situation has resulted in significant challenges in the water discharge permitting for the ongoing operation and expansion of aluminum manufacturing facilities with no commensurate environmental benefit. From discussions with EPA Office of Water staff, the Association believes that significant improvements in the aluminum water quality criteria are forthcoming and the Association would like the Department of Commerce to recognize the reasons for and importance of the improvement efforts listed below.

EPA has worked to update its database on aluminum toxicity using data developed both by EPA and as supplied by the aluminum industry from testing performed in the US. Based on these new

data, the Association is shortly expecting an updated draft Ambient Water Quality Criteria Document to be issued by EPA and noticed in the Federal Register for public comment. As understood by the Association, the new draft criteria document may include the use of a Biotic Ligand Model (BLM) similar in concept to what EPA implemented for copper in 2007 or a simpler Multi-Linear Regression (MLR) model which would yield essentially similar results to the BLM but with less calculation complexity. The Association and the broader aluminum industry await with interest the public notice on the draft criteria and use of these models as we believe that they will be a step forward in modeling the actual impact of aluminum present across varying concentrations in US waterbodies. The benefit derived from the models is that they allow for water quality standards to be set by the States that are protective for different water chemistries across the US.

A related effort being supported by the Association is for EPA to modify the current analytical test method for aluminum content in water to accurately represent only the bioavailable fraction of the total aluminum present. Present test methods measure either total aluminum in a water sample, including a significant fraction derived from suspended solids, which is not bioavailable, or only the dissolved fraction, which may under-represent the amount actually bioavailable. Developing a bioavailable aluminum test method is an important step in obtaining appropriate data for input into the EPA models and for regulatory compliance in effluent permits. Dirt typically contains around 8% aluminum and as stormwater runoff and other discharges flow into waterbodies the aluminum in that dirt is considered a pollutant for bioavailability modeling purposes even though it will not affect aquatic life. The fundamental permitting concern related to the current situation is that use of the total aluminum test method, which captures all the aluminum present in dirt, results in inaccurate characterization of waterbodies as ‘impaired waters’ on state Clean Water Act Section 303(d) lists of impaired waters. Once a waterbody is on the 303(d) list, anti-degradation requirements make it difficult, if not impossible, to obtain permits for new facilities or expand existing facilities. Impaired waters listing also often results in protracted litigation related to new or expanded facility permitting so it is important that the underlying technical basis for impaired waters listing be sound.

Water Permitting – NPDES, Pretreatment, and Effluent Guidelines Regulations

An underlying issue with NPDES (40 CFR 122) and Pretreatment (40 CFR 403) permitting regulations is that they both were developed when the need for rapid permit response was not

considered a priority. Today, the antiquated permitting timeline embedded in these regulations costs business money and lost opportunities for growth.

Related to the Effluent Guidelines, specifically the Guidelines for Nonferrous Metals Manufacturing, Subparts A, B, and C (40 CFR 421) and Aluminum Forming (40 CFR 467), these guidelines have not been updated in over 30 years. New and revised manufacturing processes have been developed in the interim, and if these new processes and technologies could be incorporated into the regulations a more efficient and timely permitting process would result. Therefore, the Association proposes that in the case of all these regulations that they be revised to ensure quick permit responses along with requiring the provision of adequate resource staff in the states to process and act on permit applications.

Water Permitting – Fish Consumption Rates

In late 2016, EPA Region 10 disapproved a significant number of Washington State's human health water quality standards. It appears that this action was driven by EPA Region 10 not accepting Washington State's views about acceptable risk levels for various fish consuming populations within the state. The impact of EPA Region 10's action in this case has caused some human health water quality standards to be reduced by a factor of approximately 24 below the state's assessment of what it believes are proper standards. In response to this EPA Region 10 rulemaking, various groups within Washington State have filed a Petition for Reconsideration with EPA Headquarters and the Association understands that other states in addition to Washington State are facing similar issues.

Water Permitting – Stormwater

EPA issued the first general permit for industrial storm water discharges in 1992 and subsequently revised it to the multi-sector general permit (MSGP) utilized as a model by many delegated states. However, there is not agreement on what constitutes appropriate water quality based limits for storm water discharges; thus, EPA and most delegated states have defaulted to the water quality criterion value for the benchmark values without regard to the size of the receiving stream that the industrial facility is discharging into. Therefore, the Association suggests that the EPA modify the general storm water permit to develop alternate parameters for monitoring and allow the development of alternate benchmark values.

Air Permitting – National Emission Standards for Hazardous Air Pollutants (NESHAP)

EPA's lack of responsiveness to manufacturing's real world permitting needs results in a reduced rate of capital investment. As an example, as part of the Risk and Technology Review (RTR) process, in 2016 EPA updated the requirements in 40 CFR Part 63, Subpart RRR – National Emissions Standards for Hazardous Air Pollutants for Secondary Aluminum Production which went into effect in September 2016. The updated regulations require round top furnaces that are constructed after February 14, 2012, to either install hooding that meets the rule's guidelines, petition the permitting authority that such hoods are impracticable, or assume a 20% increase from measured furnace emissions. Although the rule exempted existing round top furnaces from these burdensome requirements, the rule unnecessarily required that new round top furnaces either pursue an impracticability determination or accept a 20% diminished capacity. However, neither existing or new round top furnaces can be designed to operate with hooding. This is because the inherent charging method for round top furnaces require the operation of overhead cranes and removal of the lid to load the furnace which prevents hood installation. Requiring an impracticability determination for new round top furnaces thus far has proven to be unpredictable and untimely with the resulting undefined timing of approvals adversely impacts the capital investment plans for future aluminum industry projects involving these furnaces.

Air Permitting – New Source Review/Prevention of Significant Deterioration (NSR/PSD) Reform

The Association believes that the following revisions that would remove significant barriers to air emissions permitting under the NSR/PSD program.

- Revision of the NSR SER for PM_{2.5} to 15 tons per year to align it with the PM SER.
- Development and implementation of standardized, regional BACT emission rate/control efficiency factors for common units. Allow flexibility for override if site specific data is available.

- In modeling, eliminate the double counting of impacts to ambient pollutant concentrations caused by the adding of measured regional background concentrations to modeled concentrations that include emissions from existing sources. Existing sources are already accounted for in the measured ambient regional background levels, and should not also be added to the required modeling result.
- Revise the definition of ‘begin actual construction’ contained in 40 CFR 52.21 (b)(11) to provide for greater ability for conducting certain construction activities that are of a permanent nature in advance of obtaining a permit. Facilities should, at their own risk, be able to conduct time-consuming construction activities, e.g. installing foundations and running underground utilities, in advance of obtaining a NSR/PSD construction permit where it remains obvious that the source for which a permit is being sought cannot operate. As a reference for how this can work, many states have already incorporated such common-sense allowances in their minor source permitting programs.

Air Permitting – National Ambient Air Quality Standards (NAAQS) Implementation and Modeling

Below are some revisions that the Association believes are needed relative to improving the constraints placed on manufacturing facility permitting under the NAAQS program.

- Determining attainment/non-attainment areas for the purposes of NAAQS compliance designations using physical measurement data, not speculative dispersion modeling as experience indicates that dispersion models are consistently inaccurate and routinely produce results unverifiable in the real world.
- Maintaining a designation of ‘attainment/unclassifiable’ for those areas where measurement data is not available.
- Restructuring the time interval perspective of the SO₂ NAAQS standard compliance methodology to reflect a multiple-hour averaging interval that provides the same level of public health protection as a one-hour interval but increases the viability of an attainment demonstration. In 2010, the primary NAAQS for sulfur dioxide were changed from a 24-hour

and annual standard to a short-term, one-hour standard at 75 ppb. Modeling or ambient air monitoring are used to determine attainment with the 2010 standard. Where monitoring is used, the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations is used to determine attainment. Using the 99th percentile approach, the day with the fourth highest hourly value in a year is the data point that is used to represent that year in the 3-year average. Ambient air monitoring station placement decisions are based on the results of models showing sites of maximum anticipated impacts, but the monitoring data is often used to determine attainment for a very large area. The problem is that this short-term NAAQS limit and attainment evaluations are based on conservative modeling demonstrations or ambient air monitoring at locations of maximum anticipated impacts using the 99th percentile approach. This makes attainment demonstrations difficult. Therefore, suggested improvements are to reeform the primary SO₂ NAAQS by returning to a longer-time interval standard, raising the one-hour standard from 75 ppb, reconsidering monitoring station placement to be more representative of impacts across the area being classified, and/or by using a lower percentile, such as 90th percentile. Some of the studies referenced in the 2010 rule preamble suggest that public human health would be adequately protected by a higher standard, such that the changes suggested here would provide continued public health protection while enabling more realistic attainment.

Another related issue is that the monitoring/modeling actions required for the ambient 1-hour SO₂ NAAQS are triggered primarily by annual emissions from a facility or “nearby” facilities. What is considered a “nearby” facility is extremely vague yet can have significant consequences for individual facilities working to maintain compliance with the standard. Therefore, the Association requests that specific guidelines be provided to ensure monitoring/modeling is accurate.

- Allowing emissions trading in attainment areas to show overall net emission reductions in an area (e.g., county level) as an alternative to conducting modeling. This would be similar to what is done in nonattainment NSR.

Air Permitting – Regional Haze Requirements

The Association believes that the existing Regional Haze requirements are not realistic given that it is not possible to achieve natural conditions by 2064 with current industrial and human activity. Therefore, these requirements need to be revised and accompanied by a logical explanation for any change proposed.

Air Permitting - Startup, Shutdown, and Malfunction (SSM) Provisions and Interpretations

Since the inception of the Clean Air Act, EPA through its implementing regulations has recognized that it is unreasonable to require air emissions sources to meet technology-based emission standards that were developed during periods of normal operation during periods of startup, shutdown, and malfunction. See 40 CFR 60.8(c). Further, the existence of such allowances for SSM events has been an important element of long-standing court decisions concluding that EPA established reasonable emission standards for particular source categories. There is also significant precedent for EPA recognizing that it may not be appropriate to penalize a source for failure to meet technology-based emission limitations during SSM events. However, all these considerations have recently been subject to significant interpretive revision by EPA in favor of emission limit applicability during all times of facility operation without consideration for periods of SSM events that in many cases can be out of the control of the regulated facility. Most recently, on June 14, 2016, EPA proposed in the Federal Register at 81 FR 38645 to remove Title V SSM Affirmative Defense provisions from State operating permit and Federal operating permit programs. These revised interpretations can present multiple compliance and litigation exposures to facilities managing air emission sources under technology based requirements and the Association encourages the Department of Commerce to fully investigate the current permitting and compliance burdens presented by the re-interpretations being implemented by EPA in this area. In terms of opportunities for correcting deficiencies with revised interpretations, the Association suggests considering the development of alternates such as a judicially sound affirmative defense concept, a broadly applicable work practices or compliance exclusion concept, and/or re-promulgating technology based emissions standards sufficient to cover emissions associated with SSM events.

Safety Management

Recent regulations under OSHA 29 CFR 1904 require employers to electronically submit their injury and illness data which is already required to be recorded on their on-site OSHA Illness and

Injury forms and subsequently submitted. The Association believes that this initiative will not improve safety performance as focusing on lagging indicators has not been proved to reduce serious and fatal injuries. As this additional electronic reporting process presents an unnecessary burden and has not yet been implemented, this duplicative reporting requirement should be eliminated.

Additionally a new requirement found in OSHA 29 CFR 1904.35 allows OSHA the ability to cite employers for disciplinary action. This is not needed as employees have other recourse in this situation. Therefore, the Association suggests that this rule be rescinded as it is duplicative, not necessary, and fundamentally too vague to allow its successful implementation.

Permitting - General

The Association suggests that the Department of Commerce define options and opportunities to improve the environmental permitting process in situations where multiple regulatory agencies assert jurisdiction and their objectives and review timelines/criteria conflict. This results from the statutory requirements and enabling legislation of different agencies not being unified and ultimately would require major change in the underlying statutes. However, until that occurs, opportunities for improved coordination should be implemented.

Another area suitable for Department of Commerce consideration is the revision of permitting requirements and related interpretive guidance to invalidate antiquated policy determinations that provide no environmental benefit and defy common sense. One recent example provided by a member company is the classification of a waste heat boiler proposed to be added adjunct to an existing manufacturing process as subject to electricity generating unit (EGU) air permitting requirements. This is the case if it generates saleable electricity for potential distribution in commerce even if no new emissions will result and the existing manufacturing process is unrelated to electricity generation.

The Association also notes that air Title V and water NPDES permits typically have a 5-year permit term, creating extensive and burdensome permitting processes to routinely re-issue them that yield little to no environmental benefits. The Association believes that a permit term of at least 10 years would be more appropriate with permit modifications or updates available to be used as needed only when significant changes to a facility are made.

Permitting processes make it difficult to maintain, repair, and replace existing manufacturing operations as a normal course of business as it often requires new or additional permitting. Industry should be able to extend the useful life of existing manufacturing assets without requiring new or additional permitting to sustain the operation.

EPA methodology for sampling and analytical techniques has led to numerous disagreements between industry and regulators. As sampling techniques are refined that detect substances to ever-lower levels, the regulatory benefit of imposing those techniques in permits needs to be carefully evaluated. To that end, the Association suggests that EPA evaluate sampling and analytical methodologies with that evaluation focusing on direct impact to human health and the environment with the case for changing a methodology requiring convincing analytical data to prove why a change is necessary.

Regulations - General

The most onerous part of dealing with the regulatory compliance process is the uncertainty associated with agency inconsistency, contradictory policy determinations and guidance, unclear regulations, and no precise target. This is often caused by overlapping regulations between different federal agencies (Ex. Department of Interior and EPA), and between federal and state and local regulators. Additionally, as new regulations have been introduced and revisions to previously promulgated regulations have been made, agencies, have failed to ensure that inconsistencies between rule specific requirements and generally applicable requirements have been eliminated. Thus, the Association believes that there should be a review of the existing body of federal regulations and revisions should be made where necessary to harmonize the various regulatory requirements and ensure singularity and consistency. In addition, regulations should be crafted in “plain English,” with clear guidelines on how to comply.

There also needs to be more certainty that there will not be new regulatory requirements that make long term investment difficult due to uncertainty about what the regulations will be in the future. (EPA’s Clean Power Plan is a good example of this). Additionally, many federal environmental regulations require periodic reviews, which can be too short a time-frame, or simply not needed. Therefore, a long term regulatory plan should be developed that deters new issues from surfacing. In general, timelines within that regulatory plan should be extended to allow time for compliance or

simply changed to say a second review will occur once a significant portion of the country has met the existing applicable standard.

In general, updating regulations on a regular basis to incorporate new manufacturing technologies would also be a valuable step in reducing regulatory burden. Replacing antiquated regulatory requirements that are artifacts of historical regulatory programs that have been replaced by more recent regulations would also be beneficial.

The best regulatory experience is with agencies with knowledgeable and experienced environmental professionals on their staffs. The aspect most appreciated is an agency that is open minded, flexible, and behaves in a professional manner. Agency staff that is knowledgeable of regulatory requirements, technically competent, understands the details and the subtleties associated with the regulation's implementation, and who are open to debate are the agencies that are most effective.

The Association would again like to note its appreciation for the opportunity to provide comments on this rulemaking. If you have any questions regarding them or would like to discuss any portion of them in greater detail, please contact me at Ex. 6 or cwells@aluminum.org.

Sincerely,



Curt Wells
Director, Regulatory Affairs
The Aluminum Association

May 15, 2017

Submitted via www.regulations.gov

Docket No. EPA-HQ-OA-2017-0190
Office of Regulatory Policy and Management
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Docket ID No. EPA-HQ-OA-2017-0190 Evaluation of Existing Regulations

Dear Sir or Madam –

The Aluminum Association (the “Association”) thanks the Environmental Protection Agency for the opportunity to provide comment on its *Evaluation of Existing Regulations* noticed at 82 FR 17793. The Aluminum Association, based in Arlington, VA, represents US and foreign-based primary producers of aluminum, aluminum recyclers and producers of fabricated aluminum products, as well as industry suppliers. Association member companies operate over 180 aluminum manufacturing locations across the US and the U.S. aluminum industry is a key element of the nation's manufacturing base. Strong, lightweight and recyclable, aluminum is a material uniquely suited to meet the needs and challenges of the 21st century. From increasing vehicle fuel efficiency to green building products to sustainable packaging, aluminum is well-positioned in the U.S. and global markets. A recent study highlights the importance of the aluminum industry to the U.S. economy. Today, the U.S. aluminum industry:

- Directly employs 161,000 workers and indirectly employs an additional 551,000 workers.
- Directly generates \$75 billion in economic output and indirectly generates an additional \$111 billion in economic output.
- In total, the U.S. aluminum industry supports nearly 713,000 jobs and \$186 billion in economic output, more than 1 percent of Gross Domestic Product.
- Aluminum industry jobs are high quality, advanced manufacturing jobs. Workers in the industry earn an average salary far exceeding the national average.

More specific information regarding the economic and geographic footprint of the US aluminum industry can be found at <http://www.aluminum.org/advocacy/jobs-economy>.

Additionally, since 2013 the US aluminum industry has invested over \$3 billion in new and expanded manufacturing facilities to support growth in aluminum demand, primarily in the automobile and light truck market.

The ongoing operation and expansion of facilities in a major manufacturing industry such as aluminum presents regulatory challenges that are worthy of further discussion in response to the EPA's request for comment on its *Evaluation of Existing Regulations*. Toward that end, the Association has the following comments on the EPA's request for comment on its *Evaluation of Existing Regulations*:

Air Permitting – National Emission Standards for Hazardous Air Pollutants (NESHAP)

EPA's lack of responsiveness to manufacturing's real world permitting needs results in a reduced rate of capital investment. As an example, as part of the Risk and Technology Review (RTR) process, in 2016 EPA updated the requirements in 40 CFR Part 63, Subpart RRR – National Emissions Standards for Hazardous Air Pollutants for Secondary Aluminum Production which went into effect in September 2016. The updated regulations require round top furnaces that are constructed after February 14, 2012, to either install hooding that meets the rule's guidelines, petition the permitting authority that such hoods are impracticable, or assume a 20% increase from measured furnace emissions. Although the rule exempted existing round top furnaces from these burdensome requirements, the rule unnecessarily required that new round top furnaces either pursue an impracticability determination or accept a 20% diminished capacity. However, neither existing or new round top furnaces can be designed to operate with hooding. This is because the inherent charging method for round top furnaces require the operation of overhead cranes and removal of the lid to load the furnace which prevents hood installation. Requiring an impracticability determination for new round top furnaces thus far has proven to be unpredictable and untimely with the resulting undefined timing of approvals adversely impacts the capital investment plans for future aluminum industry projects involving these furnaces.

Air Permitting – New Source Review/Prevention of Significant Deterioration (NSR/PSD) Reform

The Association believes that the following revisions that would remove significant barriers to air emissions permitting under the NSR/PSD program.

- Revision of the NSR SER for PM_{2.5} to 15 tons per year to align it with the PM SER.
- Development and implementation of standardized, regional BACT emission rate/control efficiency factors for common units. Allow flexibility for override if site specific data is available.
- In modeling, eliminate the double counting of impacts to ambient pollutant concentrations caused by the adding of measured regional background concentrations to modeled concentrations that include emissions from existing sources. Existing sources are already accounted for in the measured ambient regional background levels, and should not also be added to the required modeling result.
- Revise the definition of ‘begin actual construction’ contained in 40 CFR 52.21 (b)(11) to provide for greater ability for conducting certain construction activities that are of a permanent nature in advance of obtaining a permit. Facilities should, at their own risk, be able to conduct time-consuming construction activities, e.g. installing foundations and running underground utilities, in advance of obtaining a NSR/PSD construction permit where it remains obvious that the source for which a permit is being sought cannot operate. As a reference for how this can work, many states have already incorporated such common-sense allowances in their minor source permitting programs.

Air Permitting – National Ambient Air Quality Standards (NAAQS) Implementation and Modeling

Below are some revisions that the Association believes are needed relative to improving the constraints placed on manufacturing facility permitting under the NAAQS program.

- Determining attainment/non-attainment areas for the purposes of NAAQS compliance designations using physical measurement data, not speculative dispersion modeling as experience indicates that dispersion models are consistently inaccurate and routinely produce results unverifiable in the real world.
- Maintaining a designation of ‘attainment/unclassifiable’ for those areas where measurement data is not available.
- Restructuring the time interval perspective of the SO₂ NAAQS standard compliance methodology to reflect a multiple-hour averaging interval that provides the same level of public health protection as a one-hour interval but increases the viability of an attainment demonstration. In 2010, the primary NAAQS for sulfur dioxide were changed from a 24-hour and annual standard to a short-term, one-hour standard at 75 ppb. Modeling or ambient air monitoring are used to determine attainment with the 2010 standard. Where monitoring is used, the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations is used to determine attainment. Using the 99th percentile approach, the day with the fourth highest hourly value in a year is the data point that is used to represent that year in the 3-year average. Ambient air monitoring station placement decisions are based on the results of models showing sites of maximum anticipated impacts, but the monitoring data is often used to determine attainment for a very large area. The problem is that this short-term NAAQS limit and attainment evaluations are based on conservative modeling demonstrations or ambient air monitoring at locations of maximum anticipated impacts using the 99th percentile approach. This makes attainment demonstrations difficult. Therefore, suggested improvements are to reeform the primary SO₂ NAAQS by returning to a longer-time interval standard, raising the one-hour standard from 75 ppb, reconsidering monitoring station placement to be more representative of impacts across the area being classified, and/or by using a lower percentile, such as 90th percentile. Some of the studies referenced in the 2010 rule preamble suggest that public human health would be adequately protected by a higher standard, such that the changes suggested here would provide continued public health protection while enabling more realistic attainment.

Another related issue is that the monitoring/modeling actions required for the ambient 1-hour SO₂ NAAQS are triggered primarily by annual emissions from a facility or “nearby” facilities.

What is considered a “nearby” facility is extremely vague yet can have significant consequences for individual facilities working to maintain compliance with the standard. Therefore, the Association requests that specific guidelines be provided to ensure monitoring/modeling is accurate.

- Allowing emissions trading in attainment areas to show overall net emission reductions in an area (e.g., county level) as an alternative to conducting modeling. This would be similar to what is done in nonattainment NSR.

Air Permitting – Regional Haze Requirements

The Association believes that the existing Regional Haze requirements are not realistic given that it is not possible to achieve natural conditions by 2064 with current industrial and human activity. Therefore, these requirements need to be revised and accompanied by a logical explanation for any change proposed.

Air Permitting - Startup, Shutdown, and Malfunction (SSM) Provisions and Interpretations

Since the inception of the Clean Air Act, EPA through its implementing regulations has recognized that it is unreasonable to require air emissions sources to meet technology-based emission standards that were developed during periods of normal operation during periods of startup, shutdown, and malfunction. See 40 CFR 60.8(c). Further, the existence of such allowances for SSM events has been an important element of long-standing court decisions concluding that EPA established reasonable emission standards for particular source categories. There is also significant precedent for EPA recognizing that it may not be appropriate to penalize a source for failure to meet technology-based emission limitations during SSM events. However, all these considerations have recently been subject to significant interpretive revision by EPA in favor of emission limit applicability during all times of facility operation without consideration for periods of SSM events that in many cases can be out of the control of the regulated facility. Most recently, on June 14, 2016, EPA proposed in the Federal Register at 81 FR 38645 to remove Title V SSM Affirmative Defense provisions from State operating permit and Federal operating permit programs. These revised interpretations can present multiple compliance and litigation exposures to facilities managing air emission sources under technology based requirements and the Association

encourages the EPA to fully evaluate the current permitting and compliance burdens presented by the re-interpretations being implemented in this area. In terms of opportunities for correcting deficiencies with revised interpretations, the Association suggests considering the development of alternates such as a judicially sound affirmative defense concept, a broadly applicable work practices or compliance exclusion concept, and/or re-promulgating technology based emissions standards sufficient to cover emissions associated with SSM events.

Water Permitting – Aluminum Water Quality Criteria

The current criteria for aluminum water quality was implemented in 1988, is only applicable within a narrow pH range, and is not reflective of the current state of the science on aluminum toxicity in water. This situation has resulted in significant challenges in the water discharge permitting for the ongoing operation and expansion of aluminum manufacturing facilities with no commensurate environmental benefit. From discussions with EPA Office of Water staff, the Association believes that significant improvements in the aluminum water quality criteria are forthcoming and the Association would like to emphasize the reasons for and importance of the improvement efforts listed below.

EPA has worked to update its database on aluminum toxicity using data developed both by EPA and as supplied by the aluminum industry from testing performed in the US. Based on these new data, the Association is shortly expecting an updated draft Ambient Water Quality Criteria Document to be issued by EPA and noticed in the Federal Register for public comment. As understood by the Association, the new draft criteria document may include the use of a Biotic Ligand Model (BLM) similar in concept to what EPA implemented for copper in 2007 or a simpler Multi-Linear Regression (MLR) model which would yield essentially similar results to the BLM but with less calculation complexity. The Association and the broader aluminum industry await with interest the public notice on the draft criteria and use of these models as we believe that they will be a step forward in modeling the actual impact of aluminum present across varying concentrations in US waterbodies. The benefit derived from the models is that they allow for water quality standards to be set by the States that are protective for different water chemistries across the US.

A related effort being supported by the Association is for EPA to modify the current analytical test method for aluminum content in water to accurately represent only the bioavailable fraction of the total aluminum present. Present test methods measure either total aluminum in a water sample,

including a significant fraction derived from suspended solids, which is not bioavailable, or only the dissolved fraction, which may under-represent the amount actually bioavailable. Developing a bioavailable aluminum test method is an important step in obtaining appropriate data for input into the EPA models and for regulatory compliance in effluent permits. Dirt typically contains around 8% aluminum and as stormwater runoff and other discharges flow into waterbodies the aluminum in that dirt is considered a pollutant for bioavailability modeling purposes even though it will not affect aquatic life. The fundamental permitting concern related to the current situation is that use of the total aluminum test method, which captures all the aluminum present in dirt, results in inaccurate characterization of waterbodies as ‘impaired waters’ on state Clean Water Act Section 303(d) lists of impaired waters. Once a waterbody is on the 303(d) list, anti-degradation requirements make it difficult, if not impossible, to obtain permits for new facilities or expand existing facilities. Impaired waters listing also often results in protracted litigation related to new or expanded facility permitting so it is important that the underlying technical basis for impaired waters listing be sound.

Water Permitting – NPDES, Pretreatment, and Effluent Guidelines Regulations

An underlying issue with NPDES (40 CFR 122) and Pretreatment (40 CFR 403) permitting regulations is that they both were developed when the need for rapid permit response was not considered a priority. Today, the antiquated permitting timeline embedded in these regulations costs business money and lost opportunities for growth.

Related to the Effluent Guidelines, specifically the Guidelines for Nonferrous Metals Manufacturing, Subparts A, B, and C (40 CFR 421) and Aluminum Forming (40 CFR 467), these guidelines have not been updated in over 30 years. New and revised manufacturing processes have been developed in the interim, and if these new processes and technologies could be incorporated into the regulations a more efficient and timely permitting process would result. Therefore, the Association proposes that in the case of all these regulations that they be revised to ensure quick permit responses along with requiring the provision of adequate resource staff in the states to process and act on permit applications.

Water Permitting – Fish Consumption Rates

In late 2016, EPA Region 10 disapproved a significant number of Washington State’s human health water quality standards. It appears that this action was driven by EPA Region 10 not accepting

Washington State's views about acceptable risk levels for various fish consuming populations within the state. The impact of EPA Region 10's action in this case has caused some human health water quality standards to be reduced by a factor of approximately 24 below the state's assessment of what it believes are proper standards. In response to this EPA Region 10 rulemaking, various groups within Washington State have filed a Petition for Reconsideration with EPA Headquarters and the Association understands that other states in addition to Washington State are facing similar issues.

Water Permitting – Stormwater

EPA issued the first general permit for industrial storm water discharges in 1992 and subsequently revised it to the multi-sector general permit (MSGP) utilized as a model by many delegated states. However, there is not agreement on what constitutes appropriate water quality based limits for storm water discharges; thus, EPA and most delegated states have defaulted to the water quality criterion value for the benchmark values without regard to the size of the receiving stream that the industrial facility is discharging into. Therefore, the Association suggests that the EPA modify the general storm water permit to develop alternate parameters for monitoring and allow the development of alternate benchmark values.

Permitting - General

The Association suggests that the EPA define options and opportunities to improve the environmental permitting process in situations where multiple regulatory agencies assert jurisdiction and their objectives and review timelines/criteria conflict. This results from the statutory requirements and enabling legislation of different agencies not being unified and ultimately would require major change in the underlying statutes. However, until that occurs, opportunities for improved coordination should be implemented.

Another area suitable for EPA evaluation is the revision of permitting requirements and related interpretive guidance to invalidate antiquated policy determinations that provide no environmental benefit and defy common sense. One recent example provided by a member company is the classification of a waste heat boiler proposed to be added adjunct to an existing manufacturing process as subject to electricity generating unit (EGU) air permitting requirements. This is the case

if it generates saleable electricity for potential distribution in commerce even if no new emissions will result and the existing manufacturing process is unrelated to electricity generation.

The Association also notes that air Title V and water NPDES permits typically have a 5-year permit term, creating extensive and burdensome permitting processes to routinely re-issue them that yield little to no environmental benefits. The Association believes that a permit term of at least 10 years would be more appropriate with permit modifications or updates available to be used as needed only when significant changes to a facility are made.

Permitting processes make it difficult to maintain, repair, and replace existing manufacturing operations as a normal course of business as it often requires new or additional permitting. Industry should be able to extend the useful life of existing manufacturing assets without requiring new or additional permitting to sustain the operation.

EPA methodology for sampling and analytical techniques has led to numerous disagreements between industry and regulators. As sampling techniques are refined that detect substances to ever-lower levels, the regulatory benefit of imposing those techniques in permits needs to be carefully evaluated. To that end, the Association suggests that EPA evaluate sampling and analytical methodologies with that evaluation focusing on direct impact to human health and the environment with the case for changing a methodology requiring convincing analytical data to prove why a change is necessary.

TSCA Chemical Data Reporting

The Association has found the quadrennial TSCA Chemical Data Reporting (CDR) process to be a particularly egregious example of the benefits of a regulatory activity not outweighing the costly burden it places on covered entities. The Association's suggestion would be to eliminate the program entirely or at least restrict its scope back to organic chemicals as was in place prior to the previous administration's expansion of the program in 2010 from the "TSCA Inventory Update Rule (IUR) into the "TSCA CDR Rule". If this is not feasible due to statutory or other significant constraints, the Association suggests the following changes in order to better align this regulatory program's costs with its benefits –

As allowed in the existing regulations, provide a partial exemption from TSCA CDR reporting of aluminum consistent previous requests made by the Association in this regard. The previous response from EPA on this issue was to note that EPA wanted to review the data provided from the reporting process before making a partial exemption decision. Data from the 2012 and 2016 reporting cycle is now available for review and from the Association's review of this data it reflects markets, consumers, and uses of aluminum that are well established, well known, and predicted by the Association in its previous partial exemption request.

Expand the inorganic byproduct reporting exemption of the TSCA CDR to include not only the byproduct but also any component substances extracted from the byproduct. Revise the interpretation of manufacturing such that existing component substance extraction from byproducts is not considered to create 'newly manufactured' chemical substances. The Association is aware of and providing input into the EPA's ongoing negotiated rulemaking on this topic and eagerly awaits the outcome of the negotiations.

Revise the TSCA article exemption interpretation to reflect that the shape of aluminum billet has implications for the shape and design and of the end product such that aluminum billet importation into the US is not subject to TSCA CDR reporting requirements.

Regulations - General

The most onerous part of dealing with the regulatory compliance process is the uncertainty associated with agency inconsistency, contradictory policy determinations and guidance, unclear regulations, and no precise target. This is often caused by overlapping regulations between different federal agencies (Ex. Department of Interior and EPA), and between federal and state and local regulators. Additionally, as new regulations have been introduced and revisions to previously promulgated regulations have been made, agencies, have failed to ensure that inconsistencies between rule specific requirements and generally applicable requirements have been eliminated. Thus, the Association believes that there should be a review of the existing body of federal regulations and revisions should be made where necessary to harmonize the various regulatory requirements and ensure singularity and consistency. In addition, regulations should be crafted in "plain English," with clear guidelines on how to comply.

There also needs to be more certainty that there will not be new regulatory requirements that make long term investment difficult due to uncertainty about what the regulations will be in the future. (the Clean Power Plan is a good example of this). Additionally, many federal environmental regulations require periodic reviews, which can be too short a time-frame, or simply not needed. Therefore, a long term regulatory plan should be developed that deters new issues from surfacing. In general, timelines within that regulatory plan should be extended to allow time for compliance or changed to state that a second review will occur once a significant portion of the country has met the existing applicable standard.

In general, updating regulations on a regular basis to incorporate new manufacturing technologies would also be a valuable step in reducing regulatory burden. Replacing antiquated regulatory requirements that are artifacts of historical regulatory programs that have been replaced by more recent regulations would also be beneficial.

The best regulatory experience is with agencies with knowledgeable and experienced environmental professionals on their staffs. The aspect most appreciated is an agency that is open minded, flexible, and behaves in a professional manner. Agency staff that is knowledgeable of regulatory requirements, technically competent, understands the details and the subtleties associated with the regulation's implementation, and who are open to debate are the agencies that are most effective.

The Association would again like to note its appreciation for the opportunity to provide comments on this rulemaking. If you have any questions regarding them or would like to discuss any portion of them in greater detail, please contact me at Ex. 6 or cwells@aluminum.org.

Sincerely,



Curt Wells
Director, Regulatory Affairs
The Aluminum Association

Message

From: Lauren Wilk [lwilk@aluminum.org]
Sent: 2/1/2018 4:56:07 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: Meeting w/EPA

Thanks, Will! Really appreciate the help there. I'll circle back to your earlier email on scheduling with Samantha.

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202
T [Ex. 6] | C [Ex. 6] F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Thursday, February 01, 2018 11:55 AM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Lauren,

Please reach out to the following contacts who help coordinate Bill's schedule:

Atkinson.Emily@epa.gov
Lewis.Josh@epa.gov

Will

From: Lovell, Will (William)
Sent: Thursday, February 1, 2018 11:29 AM
To: 'Lauren Wilk' <lwilk@aluminum.org>
Subject: RE: Meeting w/EPA

Lauren,

I'm afraid the 7th will not work. Are there any dates that work for your group?

Let me check with the air office to see about setting up a meeting with Bill.

Best,
Will

From: Lauren Wilk [mailto:lwilk@aluminum.org]
Sent: Wednesday, January 31, 2018 9:38 AM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Hi, Will. I wanted to just circle back on this, since we have a few executives from member companies who are coming to town next week. Does Samantha have any availability late in the afternoon on February 7, by chance? If not, we can look at other dates in February. As I told Sam previously, the Aluminum Association has an active interest in a range of environmental policy issues – and our Aluminum Transportation Group (ATG) is particularly interested in issues related to automotive GHG emissions and fuel economy regulations. As you might know, the aluminum industry plays a significant role in the automotive supply chain. The ATG includes companies like Arconic, Alcoa, Novelis, Rio Tinto and others.

I'm also curious if you can point me in the right direction for a meeting request with Bill Wehrum, to discuss some issues related specifically to the Air office. Or perhaps we could double-up the meetings? Let me know what might work best.

Thanks for your help in getting this nailed down!

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T [Ex. 6] C [Ex. 6] F 703.358.2961

JOIN THE CONVERSATION:

From: Lauren Wilk
Sent: Thursday, January 11, 2018 3:32 PM
To: 'Lovell, Will (William)' <lovell.william@epa.gov>
Subject: RE: Meeting w/EPA

Thanks so much, Will. I'd like to bring in a few member companies, as well, so I need to check a few dates internally – I'll circle back first thing next week if that's okay with you.

Lauren



Lauren Wilk
Vice President, Policy & International Trade
The Aluminum Association
1400 Crystal Drive, Suite 430
Arlington, VA 22202

T [Ex. 6] C [Ex. 6] F 703.358.2961

JOIN THE CONVERSATION:

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]
Sent: Wednesday, January 10, 2018 6:06 PM
To: Lauren Wilk <lwilk@aluminum.org>
Subject: Meeting w/EPA

Good evening, Lauren,

I apologize for the delayed response in getting back to you about arranging a meeting with Samantha. Do you have any availabilities in the near future?

Thank you,

Will Lovell
Policy Advisor, Office of Policy
U.S. Environmental Protection Agency
(202) 564-5713
Lovell.William@epa.gov

Message

From: Messner, Kevin [KMessner@AHAM.org]
Sent: 8/22/2017 4:54:00 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: RE: EPA Meeting
Attachments: HFC Opinion US Appeals DC Circuit Arkema (00065061).pdf

Flag: Follow up

It will be me and Charlotte Skidmore (AHAM's Sr. Director of Environmental Policy). We will be discussing the HFC court ruling (attached) and how it impacts the appliance industry. We represent manufacturers of refrigerators/freezers, room air conditioners, portable air conditioners, and dehumidifier, which all use refrigerants. EPA's SNAP program regulates the use of refrigerants and was the topic of the court ruling. Do you need more detail than that?

Kevin Messner
Senior Vice President, Policy & Government Relations
Association of Home Appliance Manufacturers
1512 Willow Lane, Davis, CA 95616
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From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Tuesday, August 22, 2017 7:58 AM
To: Messner, Kevin <KMessner@AHAM.org>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: EPA Meeting

Good morning, Kevin,

I am gathering information for your group's meeting on Thursday with EPA. Could you please provide a list of attendees and any topics they wish to discuss?

Thank you,

Will Lovell

Policy Assistant, Office of Policy

U.S. Environmental Protection Agency

(202) 564-5713

Lovell.William@epa.gov

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued February 17, 2017

Decided August 8, 2017

No. 15-1328

MEXICHEM FLUOR, INC.,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

THE CHEMOURS COMPANY FC, LLC, ET AL.,
INTERVENORS

Consolidated with 15-1329

On Petitions for Review of Final Action by the
United States Environmental Protection Agency

Dan Himmelfarb argued the cause for petitioners. With him on the joint briefs were *John S. Hahn*, *Roger W. Patrick*, *Matthew A. Waring*, *William J. Hamel*, *W. Caffey Norman*, *T. Michael Guiffre*, and *Kristina V. Foehrkolb*.

Dustin J. Maghamfar, Attorney, U.S. Department of Justice, argued the cause for respondent. On the brief were *John C. Cruden*, Assistant Attorney General, *Elizabeth B. Dawson*, Attorney, U.S. Department of Justice, and *Jan*

Tierney and Diane McConkey, Attorneys, U.S. Environmental Protection Agency.

Thomas A. Lorenzen argued the cause for intervenors The Chemours Company FC, LLC, and Honeywell International Inc. in support of respondent. With him on the brief were *Robert J. Meyers, Sherrie A. Armstrong, Jonathan S. Martel, and Eric A. Rey*.

David Doniger, Benjamin Longstreth, Melissa J. Lynch, and Emily K. Davis were on the brief for intervenor Natural Resources Defense Council in support of respondent.

Before: BROWN, KAVANAUGH, and WILKINS, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge KAVANAUGH*, with whom *Circuit Judge BROWN* joins, and with whom *Circuit Judge WILKINS* joins as to Part I and Part III.

Opinion concurring in part and dissenting in part filed by *Circuit Judge WILKINS*.

KAVANAUGH, *Circuit Judge*: The separation of powers and statutory interpretation issue that arises again and again in this Court is whether an executive or independent agency has statutory authority from Congress to issue a particular regulation. In this case, we consider whether EPA had statutory authority to issue a 2015 Rule regulating the use of hydrofluorocarbons, known as HFCs.

According to EPA, emissions of HFCs contribute to climate change. In 2015, EPA therefore issued a rule that restricted manufacturers from making certain products that contain HFCs. HFCs have long been used in a variety of

familiar products – in particular, in aerosol spray cans, motor vehicle air conditioners, commercial refrigerators, and foams. But as a result of the 2015 Rule, some of the manufacturers that previously used HFCs in their products no longer may do so. Instead, those manufacturers must use other EPA-approved substances in their products.

As statutory authority for the 2015 Rule, EPA has relied on Section 612 of the Clean Air Act. 42 U.S.C. § 7671k. Section 612 requires manufacturers to replace *ozone-depleting substances* with safe substitutes.

The fundamental problem for EPA is that HFCs are not ozone-depleting substances, as all parties agree. Because HFCs are not ozone-depleting substances, Section 612 would not seem to grant EPA authority to require replacement of HFCs. Indeed, before 2015, EPA itself maintained that Section 612 did *not* grant authority to require replacement of non-ozone-depleting substances such as HFCs. But in the 2015 Rule, for the first time since Section 612 was enacted in 1990, EPA required manufacturers to replace non-ozone-depleting substances (HFCs) that had previously been deemed acceptable by the agency. In particular, EPA concluded that some HFCs could no longer be used by manufacturers in certain products, even if the manufacturers had long since replaced ozone-depleting substances with HFCs.

EPA's novel reading of Section 612 is inconsistent with the statute as written. Section 612 does not require (or give EPA authority to require) manufacturers to replace non-ozone-depleting substances such as HFCs. We therefore vacate the 2015 Rule to the extent it requires manufacturers to replace HFCs, and we remand to EPA for further proceedings consistent with this opinion.

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In the 1980s, an international movement developed to combat depletion of the ozone layer. Depletion of the ozone layer exposes **people to more of the sun's harmful ultraviolet** light, thereby increasing the incidence of skin cancer, among other harms. The international efforts to address ozone depletion culminated in the Montreal Protocol, an international agreement signed in 1987 by the United States and subsequently ratified by every nation in the United Nations. The Protocol requires signatory nations to regulate the production and use of a variety of ozone-depleting substances. Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sept. 16, 1987, S. Treaty Doc. No. 100-10, 1522 U.N.T.S. 29.

Congress implemented U.S. obligations under the Montreal Protocol by enacting, with President George H.W. Bush's **signature**, the 1990 Amendments to the Clean Air Act. Those amendments added a new Title VI to the Clean Air Act. Title VI regulates ozone-depleting substances.

Title VI identifies two classes of ozone-depleting substances: **"class I" and "class II" substances.** 42 U.S.C. § 7671a(a), (b). Section 612(a), one of the key provisions of Title VI, requires manufacturers to replace those ozone-depleting substances: **"To the maximum extent practicable, class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment."** *Id.* § 7671k(a). With a few exceptions, Title VI requires manufacturers to phase out their use of some ozone-depleting

substances by 2000, and to phase out their use of other ozone-depleting substances by 2015. *Id.* §§ 7671c(b)-(c), 7671d(a).

When manufacturers stop using ozone-depleting substances in their products, manufacturers may need to replace those substances with a substitute substance. Under Section 612(a), EPA may require manufacturers to use safe substitutes when the manufacturers replace ozone-depleting substances. *Id.* § 7671k(a).

To implement the Section 612(a) requirement that ozone-depleting substances be replaced with safe substitutes, Section 612(c) requires EPA to publish a list of both safe and prohibited substitutes:

Within 2 years after November 15, 1990, the Administrator shall promulgate rules under this section providing that it shall be unlawful to replace any class I or class II substance with any substitute substance which the Administrator determines may present adverse effects to human health or the environment, where the Administrator has identified an alternative to such replacement that –

- (1) reduces the overall risk to human health and the environment; and
- (2) is currently or potentially available.

The Administrator shall publish a list of (A) the substitutes prohibited under this subsection for specific uses and (B) the safe alternatives identified under this subsection for specific uses.

Id. § 7671k(c). In short, Section 612(c) requires EPA to issue a list of both authorized and prohibited substitute substances based on the safety and availability of the substances.

Importantly, the lists of safe substitutes and prohibited substitutes are not set in stone. Section 612(d) provides: “**Any** person may petition the Administrator to add a substance to the lists under subsection (c) of this section or to remove a substance from either of such lists.” *Id.* § 7671k(d). In other words, if EPA places a substance on the list of safe substitutes, EPA may later change its classification and move the substance to the list of prohibited substitutes (or vice versa).

In 1994, EPA promulgated regulations to implement Section 612(c). *See* Protection of Stratospheric Ozone, 59 Fed. Reg. 13,044 (Mar. 18, 1994). At the time, EPA indicated that once a manufacturer has replaced its ozone-depleting substances with a non-ozone-depleting substitute, Section 612(c) does not give EPA authority to require the manufacturer to later replace that substitute with a different substitute. EPA explained that Section 612(c) “does not authorize EPA to review substitutes for substances that are not themselves” ozone-depleting substances covered under Title VI. EPA Response to Comments on 1994 Significant New Alternatives Policy Rule, J.A. 50.

B

Hydrofluorocarbons, known as HFCs, are substances that contain hydrogen, fluorine, and carbon. When HFCs are emitted, they trap heat in the atmosphere. They are therefore “greenhouse gases.” But HFCs do not deplete the ozone layer. As a result, HFCs are not ozone-depleting substances covered by Title VI of the Clean Air Act. Instead, HFCs are potential *substitutes for* ozone-depleting substances in certain products.

In 1994, acting pursuant to its authority under Section 612(c), EPA concluded that certain HFCs were safe substitutes

for ozone-depleting substances when used in aerosols, motor vehicle air conditioners, commercial refrigerators, and foams, among other things. *See* Protection of Stratospheric Ozone, 59 Fed. Reg. at 13,122-46. Over the next decade, EPA added HFCs to the list of safe substitutes for a number of other products. *See, e.g.*, Protection of Stratospheric Ozone: Listing of Substitutes for Ozone-Depleting Substances, 68 Fed. Reg. 4004, 4005 (Jan. 27, 2003); Protection of Stratospheric Ozone; Listing of Substitutes for Ozone-Depleting Substances, 64 Fed. Reg. 22,982, 22,984 (Apr. 28, 1999).

As a result, in the 1990s and 2000s, many businesses stopped using ozone-depleting substances in their products. Many businesses replaced those ozone-depleting substances with HFCs. HFCs became prevalent in many products. HFCs have served as propellants in aerosol spray cans, as refrigerants in air conditioners and refrigerators, and as blowing agents that create bubbles in foams.

Over time, EPA learned more about the effects of greenhouse gases such as HFCs. In 2009, EPA concluded that greenhouse gases may contribute to climate change, increasing the incidence of mortality and the likelihood of extreme weather events such as floods and hurricanes. *See* Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,497-98 (Dec. 15, 2009).

In 2013, President Obama announced that EPA would seek to reduce emissions of HFCs because HFCs contribute to climate change. EXECUTIVE OFFICE OF THE PRESIDENT, THE PRESIDENT'S CLIMATE ACTION PLAN 10 (2013). The President's Climate Action Plan indicated that "the Environmental Protection Agency will use its authority

through the Significant New Alternatives Policy Program” of Section 612 to reduce HFC emissions. *Id.*

Consistent with the Climate Action Plan, EPA promulgated a Final Rule in 2015 that moved certain HFCs from the list of safe substitutes to the list of prohibited substitutes. Protection of Stratospheric Ozone: Change of Listing Status for Certain Substitutes Under the Significant New Alternatives Policy Program, 80 Fed. Reg. 42,870 (July 20, 2015) [hereinafter Final Rule]. In doing so, EPA prohibited the use of certain HFCs in aerosols, motor vehicle air conditioners, commercial refrigerators, and foams – even if manufacturers of those products had long since replaced ozone-depleting substances with HFCs. *Id.* at 42,872-73.

Therefore, under the 2015 Rule, manufacturers that used those HFCs in their products are no longer allowed to do so. Those manufacturers must replace the HFCs with other substances that are on the revised list of safe substitutes.

In the 2015 Rule, EPA relied on Section 612 of the Clean Air Act as its source of statutory authority. EPA said that Section 612 allows EPA to “**change the listing status of a particular substitute**” based on “**new information.**” *Id.* at 42,876. EPA indicated that it had new information about HFCs: Emerging research demonstrated that HFCs were greenhouse gases that contribute to climate change. *See id.* at 42,879. EPA therefore concluded that it had statutory authority to move HFCs from the list of safe substitutes to the list of prohibited substitutes. Because HFCs are now prohibited substitutes, EPA claimed that it could also require the replacement of HFCs under Section 612(c) of the Clean Air Act even though HFCs are not ozone-depleting substances.

9

Mexichem Fluor and Arkema are businesses that make HFC-134a for use in a variety of products. The 2015 Rule prohibits the use of HFC-134a in certain products. The companies have petitioned for review of the 2015 Rule. They raise two main arguments. *First*, they argue that the 2015 Rule exceeds EPA's statutory authority under Section 612 of the Clean Air Act. In particular, they contend that EPA does not have statutory authority to require manufacturers to replace HFCs, which are non-ozone-depleting substances, with alternative substances. *Second*, they allege that EPA's decision in the 2015 Rule to remove HFCs from the list of safe substitutes was arbitrary and capricious because EPA failed to adequately explain its decision and failed to consider several important aspects of the problem. We address those arguments in turn.

II

A

We first consider whether Section 612 of the Clean Air Act authorizes the 2015 Rule.

In 1987, the United States signed the Montreal Protocol. The Montreal Protocol is an international agreement that has been ratified by every nation that is a member of the United Nations. The Protocol requires nations to regulate the production and use of certain ozone-depleting substances. *See* Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sept. 16, 1987, S. Treaty Doc. No. 100-10, 1522 U.N.T.S. 29.

In 1990, in part to implement U.S. obligations under the Protocol and to regulate the production and use of ozone-

depleting substances, Congress added a new Title to the Clean Air Act: **Title VI. Among Title VI's provisions is Section 612.**

Section 612(a) of the Act provides: “To the maximum extent practicable,” ozone-depleting substances that are covered under Title VI “shall be replaced by chemicals, product substitutes, or alternative manufacturing processes that **reduce overall risks to human health and the environment.”** 42 U.S.C. § 7671k(a). Title VI sets phase-out dates for those ozone-depleting substances. *Id.* §§ 7671c, 7671d.

To implement Section 612(a), EPA maintains lists of both safe substitutes and prohibited substitutes for ozone-depleting substances. The provision governing those lists, Section 612(c), provides: It “shall be unlawful to replace any” ozone-depleting substance that is covered under Title VI “with any **substitute substance**” that is on EPA’s list of “prohibited” substitutes. *Id.* § 7671k(c). A manufacturer that violates Section 612(c) can be subject to substantial civil and criminal penalties. *See id.* § 7413(b), (c).¹

In the years since 1990, many manufacturers of the products relevant here – aerosols, motor vehicle air conditioners, commercial refrigerators, and foams – have stopped using ozone-depleting substances in those products. Manufacturers have often replaced those ozone-depleting substances with HFCs that have long been on the list of safe substitutes.

¹ Although we focus primarily on product manufacturers in this case, our interpretation of Section 612(c) applies to any regulated parties that must replace ozone-depleting substances within the timelines specified by Title VI. *See, e.g.*, 42 U.S.C. §§ 7671c, 7671d.

In the 2015 Rule, acting under the authority of Section 612(c), EPA moved some HFCs from the list of safe substitutes to the list of prohibited substitutes. As a result, manufacturers replacing ozone-depleting substances can no longer use those HFCs as a safe substitute. Even more importantly for present purposes, under the Rule, manufacturers that have already replaced ozone-depleting substances with HFCs can no longer use those HFCs in their products.

In this case, all parties agree that EPA possesses statutory authority to require manufacturers to replace ozone-depleting substances within the timelines specified by Title VI – generally by 2000 for some ozone-depleting substances, and by 2015 for other ozone-depleting substances. *See, e.g.*, 42 U.S.C. §§ 7671c, 7671d. If a substance on the safe substitutes list is later found to be an ozone-depleting substance, EPA possesses direct statutory authority to order the replacement of that ozone-depleting substance in accordance with those statutory timelines.

All parties in this case also agree that EPA may change the lists of safe and prohibited **substitutes based on EPA's** assessment of the risks that those substitutes pose for “**human health and the environment.**” *Id.* § 7671k(c); *see id.* § 7671k(d). It follows that Section 612(c) allows EPA to move a substitute from the list of safe substitutes to the list of prohibited substitutes. Therefore, assuming that all other statutory criteria are satisfied, EPA may move HFCs from the list of safe substitutes to the list of prohibited substitutes, as it did in the 2015 Rule.

In addition, all parties agree that, under Section 612(c), EPA may prohibit a manufacturer from replacing an ozone-depleting substance that is covered under Title VI with a prohibited substitute. It follows that EPA may bar any

manufacturers that *still make products that contain ozone-depleting substances* from replacing those ozone-depleting substances with HFCs. Of course, that aspect of the 2015 Rule is not a big deal as of now because there are few (if any) manufacturers that still make products that use ozone-depleting substances.²

The key dispute in this case is whether EPA has authority under Section 612(c) to prohibit manufacturers from making products that contain HFCs *if those manufacturers already replaced ozone-depleting substances with HFCs at a time when HFCs were listed as safe substitutes*. In those circumstances, does EPA have authority to require a manufacturer to now replace HFCs, which are non-ozone-depleting substances, with another substitute?

For many years, EPA itself stated that it did not possess authority under Section 612(c) to require the replacement of non-ozone-depleting substances. For example, in 1994, EPA explained that Section 612(c) **“does not authorize EPA to review substitutes for substances that are not themselves”** ozone-depleting substances. EPA Response to Comments on 1994 Significant New Alternatives Policy Rule, J.A. 50. Two years later, EPA reiterated that interpretation: EPA explained that it **“does not regulate the legitimate substitution”** of one substance **for another “first generation non-ozone-depleting”** substance. EPA Response to OZ Technology’s Section 612(d) Petition, J.A. 145.

² The parties disagree over whether, as a factual matter, *any* manufacturers still make products that use ozone-depleting substances. EPA says yes. Mexichem and Arkema say no. We need not resolve that factual dispute here, as it has no bearing on our legal analysis of the meaning of Section 612(c).

EPA now argues that it actually possesses such authority under the statute. For the first time, EPA has sought to order the replacement of a non-ozone-depleting substitute that had previously been deemed acceptable by the agency.³

EPA's new interpretation of Section 612(c) depends on the word "**replace**." As noted above, Section 612(c) makes it unlawful to "replace" an ozone-depleting substance that is covered under Title VI with a substitute substance that is on the list of prohibited substitutes. 42 U.S.C. § 7671k(c). EPA **recognizes that manufacturers "replace"** an ozone-depleting substance when the manufacturers initially replace that ozone-depleting substance with a safe substitute. But EPA argues that the initial substitution is not the only time when manufacturers "**replace**" an ozone-depleting substance. EPA claims that a manufacturer continues to "**replace**" the ozone-depleting substance every time the manufacturer uses the substitute substance, indefinitely into the future. According to EPA, replacement is not a one-time occurrence but a never-ending process. **In EPA's view**, because manufacturers continue to "**replace**" ozone-depleting substances with HFCs every time they use HFCs in their products, EPA continues to have authority to require manufacturers to stop using HFCs and to use a different substitute.

EPA's current reading stretches the word "**replace**" beyond its ordinary meaning. As relevant here, the word

³ During oral argument, EPA conceded that it had never previously moved a non-ozone-depleting substance from the list of safe substitutes to the list of prohibited substitutes. Counsel for EPA stated: "I believe it is correct that the prior de-listings have involved ozone depleting substitutes, and I may not be correct for that, but we can assume for this morning that that is correct." Tr. of Oral Arg. at 14. Since the time of oral argument, EPA has not made any filings to this Court to retract that concession.

“replace” means to “take the place of.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (5th ed. 2017 online); WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 1925 (1993); THE OXFORD ENGLISH DICTIONARY 642 (2d ed. 1989). **In common parlance, the word “replace”** refers to a new thing taking the place of the old. For example, President Obama replaced President Bush at a specific moment in time: January 20, 2009, at 12 p.m. President Obama did not “replace” President Bush every time President Obama thereafter walked into the Oval Office. By the same token, manufacturers **“replace” an ozone-depleting substance** when they transition to making the same product with a substitute substance. After that transition has occurred, the replacement has been effectuated, and the manufacturer no longer makes a product that uses an ozone-depleting substance. At that point, there is no ozone-depleting substance to **“replace,”** as EPA itself long recognized.⁴

Under EPA’s current interpretation of the word **“replace,”** manufacturers would continue to **“replace”** an ozone-depleting substance with a substitute even 100 years or more from now. EPA would thereby have indefinite authority to regulate a

⁴ The dissenting opinion says that the word **“replace”** may mean “to provide a substitute for,” rather than **“to take the place of.”** Dissenting Op. at 4, 6. **But the dissenting opinion’s alternative interpretation of the word “replace” suffers from the same flaw as EPA’s interpretation.** A manufacturer **“provides a substitute for”** an ozone-depleting substance in a product when the manufacturer transitions to making that product with a substitute substance. **After that transition takes place, the manufacturer can no longer “provide a substitute for” an ozone-depleting substance.** At that point, there is no ozone-depleting substance to **“provide a substitute for.”** Therefore, even under the dissenting opinion’s interpretation, a manufacturer cannot **“replace” an ozone-depleting substance** after the manufacturer stops using that substance.

manufacturer's use of that substitute. That boundless interpretation of EPA's authority under Section 612(c) borders on the absurd.

Because the text is sufficiently clear, we need not consider the legislative history. *See NLRB v. SW General, Inc.*, 137 S. Ct. 929, 942, slip op. at 14 (2017). In any event, the legislative history strongly supports our conclusion that Section 612(c) does not grant EPA continuing authority to require replacement of non-ozone-depleting substitutes. **The Senate's version of Title VI applied to "Stratospheric Ozone and Global Climate Protection." S. 1630, 101st Cong. tit. VII (as passed by Senate, Apr. 3, 1990) (emphasis added).** The Senate's version of the safe alternatives policy would have required the replacement not just of ozone-depleting substances, but also of substances that contribute to climate change. *Id.* sec. 702, §§ 503(8), 514(a). In other words, the Senate bill would have granted EPA authority to require the replacement of non-ozone-depleting substances such as HFCs. But the Conference Committee did not accept the Senate's version of Title VI. *See* H.R. Rep. No. 101-952, at 262 (1990) (Conf. Rep.). Instead, **the Conference Committee adopted the House's narrower focus on ozone-depleting substances.** *Id.*; *see* S. 1630, 101st Cong. sec. 711, § 156(b) (as passed by House, May 23, 1990). In short, although Congress contemplated giving EPA broad authority under Title VI to regulate the replacement of substances that contribute to climate change, Congress ultimately declined.

Put simply, EPA's strained reading of the term "replace" contravenes the statute and thus fails at *Chevron* step 1. And even if we reach *Chevron* step 2, EPA's interpretation is unreasonable. *See Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843 & n.9 (1984); *see also*

*Global Tel*Link v. FCC*, 859 F.3d 39, 59-60 (D.C. Cir. 2017) (Silberman, J., concurring).

Notwithstanding our conclusion regarding Section 612, EPA still possesses several statutory authorities to regulate HFCs.

For one thing, EPA has statutory authority under Section 612(c) to prohibit any manufacturers that still use ozone-depleting substances that are covered under Title VI from deciding in the future to replace those substances with HFCs. **Those manufacturers have yet to “replace”** ozone-depleting substances with a substitute. When they ultimately do replace ozone-depleting substances, EPA may prohibit them from using HFCs as substitutes.⁵

For another thing, EPA possesses other statutory authorities, including the Toxic Substances Control Act, to directly regulate non-ozone-depleting substances that are causing harm to the environment. *See* 15 U.S.C. §§ 2601-2629 (Toxic Substances Control Act); *see also* 42 U.S.C. § 7408 (National Ambient Air Quality Standards program); *id.* § 7412 (Hazardous Air Pollutants program); *id.* §§ 7470-7492 (Prevention of Significant Deterioration program); *id.* § 7521 (Section 202 of Clean Air Act). Our decision today does not in any way cabin those expansive EPA authorities.

In addition, EPA still has statutory authority to require product manufacturers to replace substitutes that (unlike HFCs) are themselves ozone depleting. *See, e.g.*, 42 U.S.C. §§ 7671c,

⁵ To be sure, Mexichem and Arkema argue that EPA acted arbitrarily and capriciously in removing HFCs from the list of safe substitutes. As explained in Part III below, however, we reject that argument. We conclude that EPA acted lawfully in removing HFCs from the list of safe substitutes.

7671d. Suppose, for example, that EPA determines that a substance is a safe substitute for ozone-depleting substances, but EPA later concludes that the substitute is itself an ozone-depleting substance that is covered under Title VI. In that circumstance, EPA possesses statutory authority to order the replacement of that ozone-depleting substance in accordance with the timelines prescribed by Title VI.

However, EPA's authority to regulate ozone-depleting substances under Section 612 and other statutes does not give EPA authority to order the replacement of substances that are not ozone depleting but that contribute to climate change. Congress has not yet enacted general climate change legislation. Although we understand and respect EPA's overarching effort to fill that legislative void and regulate HFCs, EPA may act only as authorized by Congress. Here, EPA has tried to jam a square peg (regulating non-ozone-depleting substances that may contribute to climate change) into a round hole (the existing statutory landscape).

The Supreme Court cases **that have dealt with EPA's** efforts to address climate change have taught us two lessons that are worth repeating here. *See, e.g., Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427 (2014). *First*, EPA's well-intentioned policy objectives with respect to climate change do not on their own authorize the agency to regulate. The agency must have statutory authority for the regulations it wants to issue. *Second*, **Congress's failure to enact** general climate change legislation does not authorize EPA to act. Under the Constitution, congressional inaction does not license an agency to take matters into its own hands, even to solve a pressing policy issue such as climate change. Justice Breyer has summarized that separation of powers point in another context – there, the war against al Qaeda. *See Hamdan v. Rumsfeld*, 548 U.S. 557, 636 (2006) (Breyer, J., concurring).

Justice Breyer stated in *Hamdan* that war is not a blank check for the President. *Id.*; *see also Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 637 (1952) (Jackson, J., concurring). So too, climate change is not a blank check for the President.

Those bedrock separation of powers principles undergird our decision in this case. However much we might sympathize or agree with EPA's **policy objectives**, EPA may act only within the boundaries of its statutory authority. Here, EPA exceeded that authority.

B

EPA's reliance on the statutory term "replace" does not justify the 2015 Rule. But that is not necessarily the end of the matter. EPA suggests that it may be able to require manufacturers to replace HFCs under an alternative theory. The question under that alternative theory is this: May EPA *retroactively* conclude that a **manufacturer's** past decision to "replace" an ozone-depleting substance with HFCs is no longer lawful, even though the original replacement with HFCs was lawful at the time it was made? Under such a "retroactive disapproval" approach, EPA could prohibit manufacturers from making products that use HFCs even though those HFCs were deemed safe substitutes at the time the manufacturers decided to initially replace an ozone-depleting substance with HFCs.

EPA's **brief** to this Court advanced such an argument only in passing. In its brief, EPA stated: **An "agency's inherent authority to revise an earlier administrative determination where faced with new developments or in light of reconsideration of the relevant facts is an essential part of the office of a regulatory agency."** EPA Br. 27 (internal quotation marks omitted).

The problem for present purposes is that EPA did not squarely articulate a “retroactive disapproval” rationale in the 2015 Rule. Instead, EPA relied on its expansive interpretation of the word “replace” in the Rule. Therefore, we may not uphold the Rule based on the “retroactive disapproval” theory. See *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947); *Pasternack v. National Transportation Safety Board*, 596 F.3d 836, 838 (D.C. Cir. 2010).

Rather, we must remand to EPA. On remand, if EPA decides to pursue this “retroactive disapproval” approach, the agency would have to address at least three issues.

First, for this “retroactive disapproval” theory to hold up, EPA would have to reasonably conclude either (i) that Section 612(c) provides EPA with statutory authority to employ a “retroactive disapproval” approach or (ii) that EPA has inherent authority to retroactively disapprove a prior replacement, even a replacement that occurred many years ago. See generally *Vartelas v. Holder*, 566 U.S. 257, 266 (2012) (retroactivity principles in statutory interpretation); *Ivy Sports Medicine, LLC v. Burwell*, 767 F.3d 81, 86 (D.C. Cir. 2014) (scope of agencies’ inherent reconsideration authority).

Second, if EPA concludes that it has authority for “retroactive disapprovals,” EPA must explain the basis for its conclusion and explain its change in interpretation of Section 612(c). See *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). As noted above, before the 2015 Rule, EPA indicated that Section 612(c) “does not authorize EPA to review substitutes for substances that are not themselves” covered ozone-depleting substances. EPA Response to Comments on 1994 Significant New Alternatives Policy Rule, J.A. 50; see Protection of Stratospheric Ozone, 59 Fed. Reg.

13,044, 13,052 (Mar. 18, 1994); EPA Response to OZ Technology's Section 612(d) Petition, J.A. 145. But under the retroactive disapproval approach, EPA would in effect require manufacturers to replace their HFCs, which are not ozone-depleting substances, with other substitutes. Such a change in EPA's approach would require an explanation. Moreover, to the extent that EPA's prior approach had "engendered serious reliance interests," EPA would need to provide a "more detailed justification" for its change. *Fox*, 556 U.S. at 515.

Third, even if EPA has authority for a "retroactive disapproval" approach, EPA must comply with applicable due process constraints on retroactive decisionmaking. The Due Process Clause limits the Government's authority to retroactively alter the legal consequences of an entity's or person's past conduct. To satisfy the Due Process Clause, EPA must at a minimum "provide regulated parties fair warning of the conduct a regulation prohibits or requires." *Christopher v. SmithKline Beecham Corp.*, 567 U.S. 142, 156 (2012) (internal quotation marks and alteration omitted). In this case, for example, even if EPA has statutory authority to retroactively disapprove the replacement of an ozone-depleting substance with HFCs, EPA plainly may not impose civil or criminal penalties on a manufacturer based on the manufacturer's past use of HFCs at the time when EPA said it was lawful to use HFCs. *See id.* We do not understand EPA to disagree with that proposition.

Unless and until EPA concludes on remand that it has cleared those three hurdles,⁶ EPA may not apply the 2015 Rule

⁶ We take no position now on whether EPA can meet those requirements. Moreover, we note that those three requirements would be necessary for EPA to prevail on a "retroactive disapproval" theory. We do not opine here on whether they would be sufficient.

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to require manufacturers to replace one non-ozone-depleting substitute with another substitute, so long as the initial substitute was listed as safe at the time the substitution was effectuated. Of course, even if EPA concludes that it has cleared those hurdles, **EPA's conclusions may be subject to review in this Court in another case.**

In short, we vacate the 2015 Rule to the extent the Rule requires manufacturers to replace HFCs with a substitute substance. We remand to EPA. On remand, if it chooses, EPA **may determine whether it has "retroactive disapproval"** authority – whether, in other words, it has authority to conclude that a manufacturer's **past decision** to replace an ozone-depleting substance with HFCs is no longer lawful.

III

Our conclusion that the 2015 Rule must be vacated to the extent it requires manufacturers to replace HFCs does not answer the question whether EPA reasonably removed HFCs from the list of safe substitutes in the first place. Mexichem and Arkema assert that EPA's **decision to remove HFCs** from the list of safe substitutes was arbitrary and capricious. In support, they advance a number of arguments.

The arbitrary and capricious standard requires that a rule be **"reasonable and reasonably explained."** *Communities for a Better Environment v. EPA*, 748 F.3d 333, 335 (D.C. Cir. 2014) (internal quotation marks omitted). EPA must **"examine the relevant data and articulate a satisfactory explanation for its action."** *Motor Vehicle Manufacturers Association of United States, Inc. v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 43 (1983). Applying that deferential standard, we reject all of Mexichem and Arkema's **arbitrary and capricious challenges.**

First, Mexichem and Arkema assert that EPA ignored a key “**requirement**” in the 1994 Rule implementing Section 612(c) – namely, that EPA may “**restrict only those substitutes that are significantly worse**” than the available alternatives. Reply Br. 21; Protection of Stratospheric Ozone, 59 Fed. Reg. 13,044, 13,046 (Mar. 18, 1994) (capitalization altered). They claim that EPA did not demonstrate that HFCs are significantly worse than the available alternatives. In fact, however, the 1994 Rule said that restricting significantly worse substitutes was just one of seven “**guiding principles**” for EPA – not a hard-and-fast requirement. Protection of Stratospheric Ozone, 59 Fed. Reg. at 13,046. Moreover, based on data regarding the environmental effects of the relevant substances, EPA repeatedly concluded that the substances EPA added to the list of **prohibited substitutes posed a “significantly greater risk**” than the available alternatives. *See, e.g.*, Final Rule, 80 Fed. Reg. at 42,904, 42,905, 42,912, 42,915, 42,917, 42,919. So that challenge fails.⁷

Second, Mexichem and Arkema argue that EPA should not have relied so heavily on the numeric Global Warming Potential score to assess the “**Atmospheric effects and related health and environmental impacts**” of HFCs and other substitutes. 40 C.F.R. § 82.180(a)(7)(i). But as EPA has explained, that is the tool preferred by leading scientists for analyzing the effects of greenhouse gases. EPA Response to

⁷ Mexichem and Arkema also assert that EPA’s decision to **change the listing status of HFCs violated EPA’s regulations because EPA did not compare HFCs to the proper comparator substances.** *See* 40 C.F.R. §§ 82.170(a), 82.172. That is not accurate. In the 2015 Rule, EPA compared HFCs with other substances that are on EPA’s list of safe substitutes, as EPA is permitted to do under its regulations. *See id.* § 82.170(a); Final Rule, 80 Fed. Reg. at 42,937.

Comments on Proposed Rule at 162, J.A. 727. EPA reasonably relied on the Global Warming Potential score.

Third, Mexichem and Arkema suggest that EPA failed to provide objective benchmarks for determining which **substances'** Global Warming Potential scores were too high to be acceptable. But EPA was not assessing the score of each individual substance in isolation. Instead, EPA was *comparing* substances with one another. EPA reasonably concluded that substances with higher scores posed a greater global warming risk than substances with lower scores. *See, e.g.*, Final Rule, **80 Fed. Reg. at 42,882**. That is a **“comprehensible”** and objective method for assessing environmental risks. *Postal Service v. Postal Regulatory Commission*, 785 F.3d 740, 753 (D.C. Cir. 2015).

Fourth, according to Mexichem and Arkema, EPA failed to consider data regarding the overall amount of each substitute that would be emitted into the atmosphere. Not so. EPA considered whether there were **“substantial differences”** between HFCs and other substitutes that **“might affect total atmospheric emissions.”** Final Rule, 80 Fed. Reg. at 42,938. EPA also looked at other factors related to atmospheric **emissions**, “such as charge size of refrigeration equipment and total estimates of production,” as part of “its assessment of **environmental and health risks of new alternatives.”** *Id.* Because EPA accounted for factors that affect the quantity of emissions, EPA did not entirely fail to “consider an important **aspect of the problem.”** *State Farm*, 463 U.S. at 43.

Fifth, Mexichem and Arkema assert that EPA should have accounted for energy efficiency when assessing the atmospheric effects of HFCs. But as EPA explained, the energy efficiency of a substance often is not informative in isolation. Final Rule, 80 Fed. Reg. at 42,921-22. The

efficiency of the substance depends on the efficiency of the *equipment* in which the substance is used. In part because EPA cannot control the efficiency of equipment under Section 612(c), EPA decided not to evaluate the energy efficiency of substitutes in its analysis. *Id.* Under those circumstances, **EPA’s approach was reasonable and reasonably explained.**

Sixth, Mexichem and Arkema argue that EPA should have placed conditions on how HFCs could be used, rather than entirely prohibiting certain uses of HFCs. But EPA adequately explained that use controls are typically appropriate when a *particular use* of a substance carries an especially high risk that can be mitigated by placing conditions on that use. *Id.* at 42,899. Use controls would not be appropriate for HFCs, EPA stated, because the hazards of HFCs are not unique to particular uses. **Instead, “the environmental risks” from HFCs “are due to the collective global impact of refrigerant emissions released over time.”** *Id.* EPA also explained that use controls for HFCs did not make sense because other substitutes are readily available. *Id.* That conclusion is reasonable and reasonably explained for purposes of arbitrary and capricious review under the Administrative Procedure Act.

Seventh, Mexichem and Arkema claim that EPA failed to consider transition costs – that is, the costs of transitioning from prohibited HFCs to approved substitutes. But EPA did take transition costs into account when it decided to give certain product manufacturers extra time to comply with the Rule. *See, e.g., id.* at 42,933. EPA acted reasonably for purposes of arbitrary and capricious review.

* * *

In sum, we grant the petitions and vacate the 2015 Rule to the extent it requires manufacturers to replace HFCs with a

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substitute substance. We remand to EPA for further proceedings consistent with this opinion. We reject all of **Mexichem and Arkema's other challenges** to the 2015 Rule. The petitions are therefore granted in part and denied in part.

So ordered.

WILKINS, *Circuit Judge*, concurring in part and dissenting in part: **I must depart from the Court’s opinion concluding that Section 612 of the Clean Air Act unambiguously prohibits EPA from requiring the replacement of HFCs. The majority claims that “EPA’s novel reading of Section 612 is inconsistent with the statute as written,” because Section 612 does not provide EPA with the authority to require “manufacturers to replace non-ozone-depleting substances such as HFCs.”** Maj. Op. 3. Accordingly, the majority disposes of the issue in a *Chevron* step-one analysis through an interpretation of the word “replace.” *See id.* at 9-15. I disagree. The bar for deciding a case at *Chevron* step one is high, requiring clear and unambiguous congressional intent. *See Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984). **Because the term “replace” is susceptible of multiple interpretations in this context, it cannot serve as the basis for discerning clear congressional intent. *See, e.g., U.S. Postal Serv. v. Postal Regulatory Comm’n*, 640 F.3d 1263, 1267 n.4 (D.C. Cir. 2011) (“Our second inquiry will require us to proceed to *Chevron* step 2 because the phrase ‘due to’ has an additional—and ambiguous—meaning, which the Commission did not address.”).** Thus, the Court must proceed to *Chevron* step two and decide **whether EPA’s interpretation of the statutory scheme is reasonable.** Because I find that it is, I would deny the petition on all grounds.

I.

We review EPA’s interpretation of the Clean Air Act under the two-step framework established in *Chevron*. *See Catawba Cnty., N.C. v. EPA*, 571 F.3d 20, 35 (D.C. Cir. 2009). Pursuant to step one of the *Chevron* analysis, **“both the agency and the courts [must] give effect to Congress’s unambiguously expressed intent if the underlying statute speaks directly to the precise question at issue.”** *Citizens of Coal Council v. Norton*, 300 F.3d 478, 481 (D.C. Cir. 2003). **In other words, “if the**

intent of Congress is clear and unambiguously expressed by the statutory language at issue, that would be the end of our analysis.” *Zuni Pub. Sch. Dist. No. 89 v. Dep’t of Educ.*, 550 U.S. 81, 93 (2007). When making this determination, we may rely on the traditional tools of statutory interpretation, **including the statute’s text, structure, purpose, and legislative history.** *Citizens of Coal Council*, 300 F.3d at 481.

I respectfully disagree with the majority that the relevant language in Section 612 meets the *Chevron* step one standard. This is simply not a case where Congress has clearly and **directly spoken to the issue in a manner that** “unambiguously foreclosed the agency’s statutory interpretation.” *Catawba Cnty.*, 571 F.3d at 35.

The majority focuses primarily upon two provisions of Section 612 as clearly and unambiguously demonstrating that the 2015 Rule was not authorized by Congress. Here are the two provisions:

To the maximum extent practicable, *class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes* that reduce overall risks to human health and the environment.

42 U.S.C. § 7671k(a) (emphasis added).

Within 2 years after November 15, 1990, the Administrator shall promulgate rules under this section providing that *it shall be unlawful to replace any class I or class II substance with any substitute substance* which the Administrator determines may present adverse effects to human health or the environment,

where the Administrator has identified an alternative to such replacement that—

(1) reduces the overall risk to human health and the environment; and

(2) is currently or potentially available.

The Administrator shall publish a list of (A) the substitutes prohibited under this subsection for specific uses and (B) the safe alternatives identified under this subsection for specific uses.

Id. § 7671k(c) (emphasis added).

The majority contends that the word “replace,” when used in these two provisions, can have only one meaning: to “take the place of.” Maj. Op. 13-14; *see id.* at 14 (“In common parlance, the word ‘replace’ refers to a new thing taking the place of the old.”). Under this definition, a substitute can only “replace” an ozone-depleting substance *once*. After the manufacturer has transitioned from an ozone-depleting substance to a non-ozone-depleting substitute, there is nothing left to “replace.” *Id.* While the majority’s definition may be one way to interpret the statute, for several different reasons, it is by no means the only way to construe the text.

First, with respect to the plain text of the statute, the meaning of the word “replace” is ambiguous. Nowhere in Section 612 is the term “replace” statutorily defined. *See* 42 U.S.C. § 7671 (definitions). The majority does not disagree, and instead relies on dictionary definitions to conclude that “replace” means to “take the place of.” Maj. Op. 13-14. However, each of the dictionaries cited by the majority also defines “replace” to mean to “substitute for.” *See* THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (5th ed. 2017 online) (“To fill the place of; provide

a substitute for”); WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 1925 (1993) (“[T]o take the place of: serve as a substitute for or successor of”); THE OXFORD ENGLISH DICTIONARY 642 (2d ed. 1989) (“To take the place of, become a substitute for (a person or thing).”).

The difference in meaning between “to take the place of” and “to provide a substitute for” may be subtle, but it is rather significant in the context of this statute. Section 612 pertains to replacing a category, or *class*, of chemical substances; indeed the substances are defined in the statute as “class I” and “class II” substances. 42 U.S.C. § 7671(3), (4). Thus, this statute is not directed to a specific individual or position, and the majority’s example noting that “President Obama *replaced* President Bush at a specific moment in time,” *Maj. Op.* 14, is therefore inapposite. A more pertinent example would be: “Hybrid electric engines, fully electric engines, hydrogen fuel cell power, and other alternatives are replacing the internal combustion engines in passenger cars.” The Oxford Dictionary provides a similar example sentence: “This is required to replace older medicines that will eventually face competition from generic substitutes.” *Replace*, OXFORD DICTIONARY, <https://en.oxforddictionaries.com/definition/replace> (last accessed July 14, 2017). In both examples, the ubiquitous product that has become the industry standard is “replaced” by a number of substitutes, and the replacement takes place not at a specific point in time, not just once, and not by a single substitute. Instead, the ubiquitous item is “replaced” by any number of substitutes over the course of years, and it may be the case that one substitute is succeeded by a better substitute at some point in time. As one dictionary puts it, “*Replace* applies both to substituting something new or workable for that which is lost, depleted or won out and to placing another in the stead of one who leaves or is dismissed from a position.” American Heritage Dictionary (2d Coll. ed. 1982).

Second, the structure of the statutory text also contradicts the clear meaning proffered by the majority. The two key provisions of Section 612 are not directed to any particular group of individuals or class of companies. They provide that “class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes,” 42 U.S.C. § 7671k(a), and that “it shall be unlawful to replace any class I or class II substance with any substitute substance,” *id.* § 7671k(c). These Congressional mandates, written in the passive voice and without identifying a particular target of the regulation, appear to apply to anyone and everyone, including retailers, product manufacturers and chemical manufacturers.¹ The majority focuses on product manufacturers, contending that once the manufacturer replaces the class I or class II substance in its product with a non-ozone-depleting substitute, “the replacement has been effectuated.” *Maj. Op.* 14.

However, this point of view ignores the retailer. Suppose a retailer needs to refurbish an air conditioner manufactured in the early 1990s that uses a class I substance as a refrigerant. If the retailer chooses to have the air conditioner serviced by recharging it with new refrigerant, she is prohibited from

¹ In other provisions of Section 612, Congress identified the target of the regulation as chemical manufacturers, like the petitioners in this case. *See, e.g.*, 42 U.S.C. § 7671(e) (“**The Administrator shall require any person who produces** a chemical substitute for a class I substance to provide the Administrator with such person’s unpublished health and safety studies on such substitute and *require producers* to notify the Administrator not less than 90 days before new or existing chemicals are introduced into interstate commerce **for significant new uses as substitutes for a class I substance.**” (emphasis added)); *see also id.* § 7671(11) (defining “produce” as “the manufacture of a substance from any raw material or feedstock chemical . . .”).

“replacing” the class I substance with a chemical substitute “which the Administrator determines may present adverse effects to human health or the environment[.]” 42 U.S.C. § 7671k(a). If the retailer chooses to purchase a new air conditioner instead, she is still **“replacing”** a class I substance, and the new air conditioner cannot contain an unsafe substitute. *Id.* Either way, the retailer’s **action falls within the scope of the mandates in Section 612.** And if the retailer purchases a new air conditioner, the fact that the manufacturer may have previously **“replaced”** a class I substance with an HFC as the refrigerant in its air conditioners does not mean that **“the replacement has [already] been effectuated”** with respect to that retailer. *See* Maj. Op. 14. By the express terms of the statute, if the EPA determines as of 2017 that HFCs are no longer safe substitutes for class I substances given available refrigerant alternatives, it would appear that Congress has given EPA the authority to prohibit the further use of HFCs in air conditioners so that the retailer **in our example cannot “replace” her class I substance-utilizing air conditioner with a new air conditioner utilizing an unsafe substitute.** The majority holds otherwise. Alternatively, the express terms of the statute appear to give EPA the authority to prohibit the retailer from recharging her old air conditioner with an HFC as the refrigerant, which the agency could implement by restricting the manufacture, marketing, and use of HFCs. Given its focus on product manufacturers, the majority opinion is curiously silent about how its statutory interpretation affects retailers and other end users who have products utilizing class I and class II substances, despite the obvious importance of the issue.

In my view, the connotation of **“replace”** as **“to provide a substitute for”** more accurately reflects the intent of Congress given the use of the term and sentence structure in the key statutory provisions. This interpretation is further supported by the fact that Congress used **the word “substitute”** ten separate

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times in Section 612, and the word “**alternative**” a **dozen times** more, including in the title of the section. *See* 42 U.S.C. § 7671k (“**Safe Alternatives Policy**”). In that context, “**replacing**” the class I or class II substance is not necessarily a one-time event and alternatives or substitutes can be deemed replacements or successors, even if they are not the first-generation successor. At a minimum, the definition of “replace” is ambiguous, and “**to provide a substitute for**” just as likely manifests Congress’s intent as the definition proffered **by the majority**. “Confronted by two plausible readings of the statute, **we cannot declare Congress’ intent unambiguous.**” *Adirondack Med. Ctr. v. Sebelius*, 740 F.3d 692, 698 (D.C. Cir. 2014).

Third, the majority’s interpretation also undermines the purpose of Section 612, which is, “[t]o the maximum extent practicable,” to carry out the replacement of class I and class II substances **with** “chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment.” 42 U.S.C. § 7671k(a). Significantly, Congress authorized EPA to develop a list of unsafe alternatives and a list of safe alternatives, but Congress chose, for whatever reason, only to bar the use of alternatives **on the “unsafe list,” rather than mandating the use of only those alternatives appearing on the “safe list.”** *See id.* § 7671k(c) (“it shall be unlawful to replace any class I or class II substance with any substitute substance which the Administrator determines may present adverse effects to human health or the environment”). **By writing the statute in this manner, Congress** allowed manufacturers to replace class I and II substances with alternatives that have not been specifically approved by the EPA, so long as the substitute has not been specifically deemed unsafe by the EPA. **The majority’s interpretation of “replace”** makes a mockery of the statutory purpose, because a product manufacturer could “replace” a class I substance with a

substitute before the EPA has a chance to evaluate it completely, and if the agency later determines that a different substitute “reduce[s] overall risks to human health and the environment,” *id.* § 7671k(a), the agency would be powerless to tell that product manufacturer that it could no longer use the more risky substitute. **In the majority’s view, the “replacement” is a *fait accompli*, and EPA is powerless to act under Section 612. Such an interpretation undermines Congress’s intent to “reduce overall risks to human health and the environment” in a manner “to the maximum extent practicable.” *Id.***

In doing so, the majority takes an even more extreme position than petitioners, who conceded that “if ozone-depleting substances are in use, EPA can list and de-list” to and from the lists of acceptable and unacceptable alternatives. Oral Arg. at 11:07, *Mexichem Fluor, Inc. v. EPA* (Feb. 17, 2017) (No. 15-1328). According to petitioners, EPA “can list or de-list ozone-depleting substances and non-ozone-depleting substances *because the list at that point is consisting of things that will replace the things that are in use, which are ozone-depleting substances . . .*” *Id.* at 11:14 (emphasis added). The petitioners are at least trying to interpret “replace” in a manner consistent with the statutory purpose – but as explained *infra* in part II, they are simply wrong on the facts, because ozone-depleting substances are still in use. The majority’s definition of “replace,” on the other hand, has no semblance of consistency with this aspect of Congress’s purpose.

Indeed, Section 612 is aimed at regulating which substitutes can be used as replacements for class I and class II substances, rather than regulating those ozone-depleting substances themselves. Congress phased out the production and manufacture of ozone-depleting substances in other statutory provisions. *See* 42 U.S.C. §§ 7671c, 7671d. Section

612, on the other hand, is focused solely on substituting class I and class II substances with safe alternatives. *See id.* § 7671k. Because Section 612 promotes the use of safe substitutes, it **necessarily requires a reading of the word “replace” that comports with this congressional intent. The majority’s cramped reading of the statute contradicts Congress’s intent that the EPA prohibit the use of “any substitute substance” that may “present adverse effects to human health and the environment” where a less risky substitute is available.** *Id.* § 7671k(c) (emphasis added).

Moreover, the majority’s interpretation also runs counter to the purpose of the petition process contained in Section 612. Congress provided that “[a]ny person may petition the Administrator to add a substance to the [safe or unsafe alternatives] lists . . . or to remove a substance from either of such lists.” *Id.* § 7671k(d). The petition process becomes a half-measure if EPA is only allowed to “replace” an ozone-depleting substance once and only once. The majority’s interpretation grants EPA one bite at the apple, prohibiting additions to the unsafe substitutes list or removals from the safe substitutes list if the product manufacturer has already begun using a non-ozone-depleting substitute for the class I or class II substance. By creating this petition process, it is evident that Congress desired the safe alternatives list to be a fluid and evolving concept that promotes those alternatives that pose the least overall risk to human health and the environment. Congress undoubtedly knew how to instruct EPA to develop a list of acceptable and unacceptable substitutes by a certain date and then stop there. The fact that Congress did not do so is telling. *See City of Arlington, Tex. v. FCC*, 133 S. Ct. 1863, 1868 (2013) (“Congress knows to speak in plain terms when it wishes to circumscribe, and in capacious terms when it wishes to enlarge, agency discretion.”). Congress chose a starkly different path, and the majority has taken the power that

Congress granted individuals to request the addition of more risky substitutes to the unsafe list and rendered it largely impotent. When interpreting two interrelated statutory provisions, “[a]bsent clearly expressed congressional intent to the contrary, it is our duty to harmonize the provisions and render each effective.” *Adirondack Med. Ctr.*, 740 F.3d at 698–99.

Fourth, the majority’s references to EPA’s **prior** interpretations of its statutory authority cannot change the *Chevron* step one analysis. *See* Maj. Op. 12. I agree with the majority that we must reject any EPA interpretation of “**replace**” if we determine that Congress has clearly and directly spoken to the contrary, because “[t]he judiciary is the final authority on issues of statutory construction and must reject administrative constructions which are contrary to clear congressional intent.” *Chevron*, 467 U.S. at 843 n.9. But the EPA’s **interpretations** of the statute are not themselves suitable **evidence of Congress’s** clear intent. *See Village of Barrington, Ill. v. Surface Transp. Bd.*, 636 F.3d 650, 660 (D.C. Cir. 2011); *see also Kentuckians for Commonwealth Inc. v. Rivenburgh*, 317 F.3d 425, 443 (4th Cir. 2003) (“**Agency interpretations of statutory provisions only come into play if Congress has not spoken clearly. Relying on agency interpretations as evidence of a clear congressional intent is therefore misguided.**” (emphasis in original)).

Finally, an examination of Section 612’s legislative history does not **change the outcome**. Where “a statute is silent or ambiguous with respect to the question at issue,” **we must “defer to the ‘executive department’s construction of a statutory scheme it is entrusted to administer,’ unless the legislative history of the enactment shows with sufficient clarity that the agency construction is contrary to the will of Congress.**” *Japan Whaling Ass’n v. Am. Cetacean Soc.*, 478

U.S. 221, 233 (1986) (quoting *Chevron*, 467 U.S. at 844 (emphasis added, citation omitted)). In other words, “conflicting [legislative history] cannot clarify ambiguous statutory language,” *Am. Bankers Ass’n v. Nat’l Credit Union Admin.*, 271 F.3d 262, 269 (D.C. Cir. 2001), and “[w]hile [legislative] history can be used to clarify congressional intent even when a statute is superficially unambiguous, the bar is high,” *Williams Companies v. FERC*, 345 F.3d 910, 914 (D.C. Cir. 2003).

Here, the legislative history cited by the majority cannot meet the required high bar to show clear Congressional intent, **particularly since the legislative activity** “was not . . . addressed to the precise issue raised by th[is] case[.]” *Chevron*, 467 U.S. at 853. The precise question presented here is whether **“Section 612 unambiguously covers only replacements of ozone-depleting substances and does not authorize ‘replacements of replacements’.”** Pet’rs’ Br. 29. The Senate bill cited by the majority had no provisions whatsoever regarding how replacements of covered substances were to be carried out. Instead, the Senate bill would have phased out production entirely of not only ozone-depleting substances, but also certain substances which were known or reasonably suspected to contribute to **“atmospheric or climatic modification.”** S. 1630, 101st Cong. §§ 504, 506 (as passed by Senate, Apr. 3, 1990). But the Senate bill had no provisions for creating a list of acceptable substitutes or for prohibiting unacceptable substitutes; nor did it have any provisions for adding substitutes to, or removing substitutes from, the **“acceptable”** and **“unacceptable”** lists. Instead, the Senate bill directed EPA to support programs to identify and promote the development of safe alternatives and to maintain a public clearinghouse of **“available”** alternatives. *Id.* § 514. All of the statutory provisions in Section 612 concerning acceptable and banned alternatives originated in the House bill. S. 1630, 101st

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Cong. § 156 (1990) (as passed by House, May 23, 1990). At best, this legislative history shows that Congress rejected a proposal to ban and phase out the production of substances that contribute to climate change. However, the history is silent on the much different question of whether Congress intended to allow EPA to make “replacements of replacements” of the substitutes for banned ozone-depleting substances. Because “the legislative history as a whole is silent on the precise issue before us,” *Chevron*, 467 U.S. at 862, it cannot demonstrate clear congressional intent on that question.

* * *

Given my interpretation of Section 612’s plain language, purpose, and legislative history, I cannot agree with my colleagues that the word “replace” clearly and unambiguously means to “take the place of,” and only permits a one-time replacement of ozone-depleting substances. Rather, at a minimum, sufficient ambiguity exists to proceed to *Chevron* step two. See, e.g., *NRDC v. EPA*, 22 F.3d 1125, 1138 (D.C. Cir. 1994) (“Because the phrase ‘take effect’ is itself ambiguous, its meaning must be discerned according to *Chevron*’s second step.”).

II.

The second step in the *Chevron* framework requires courts to grant deference to an administrative agency’s construction of an ambiguous statute if that interpretation is reasonable. *Chevron*, 467 U.S. at 843. “[A] court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency.” *Id.* Where the interpretation would be one Congress could have sanctioned, the administrative agency is entitled to deference and its construction should be afforded “considerable weight.” *Id.*

For the reasons discussed in Part I, I find EPA's interpretation of Section 612 to be reasonable. EPA's interpretation comports with a common definition of the word "replace," which is to "[p]rovide a substitute for." *See, e.g., Replace*, OXFORD DICTIONARY, *supra*. This meaning of "replace" is consistent with Section 612's statutory purpose, which is, "to the maximum extent practicable," to replace ozone-depleting substances with "chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment." 42 U.S.C. § 7671k(a)(emphasis added). Comparing alternatives to each other and selecting the alternative that creates the lowest level of overall risk to human health and the environment accords nicely with the policy choice explicitly stated by Congress. EPA's interpretation further avoids the majority's manufacturer-by-manufacturer structure, which does not fully comport with the statutory framework.

Finally, I do not read the administrative record in the same manner as the majority. EPA never stated that regulation of non-ozone-depleting substitutes was completely off limits, nor clearly acted in a manner to foreclose its present interpretation.

The past language of EPA that is relied upon by the majority is far from conclusive on the meaning of "replace" in this context. It is true that EPA stated in the course of the 1994 rulemaking that "Section 612(c) authorizes EPA to review all substitutes to Class I and II substances, but does not authorize EPA to review substitutes for substances that are not themselves class I or II substances." J.A. 50. But this excerpt alone does not tell the whole story. At the time, several commenters requested that "EPA clarify that SNAP should only apply to substitutes for Class I or Class II compounds," while another commenter suggested "that SNAP should aggressively reevaluate previously approved second-

generation alternatives as new and environmentally preferable **alternatives are developed.**" *Id.* EPA began its response to these comments as follows:

A key issue is whether there exists a point at which an alternative should no longer be considered a class I or II substitute as defined by Section 612. The Agency believes that as long as class I or II chemicals are being used, *any substitute designed to replace these chemicals* is subject to review under Section 612.

J.A. 50 (emphasis added). This statement by the agency is consistent with how it has construed "replace" in the 2015 Rule.

Furthermore, EPA's seemingly contradictory statement relied upon by the majority must be placed in context. In Section 612, Congress specified that producers of chemical **substitutes for class I substances are required** "to provide the Administrator with such person's unpublished health and safety studies on such substitute and require producers to notify the Administrator not less than 90 days before new or existing chemicals are introduced into interstate commerce for significant new uses as substitutes for a class I substance." 42 U.S.C. § 7671k(e). This advance reporting requirement gives the agency a 90-day period to review the chemical substitute and related data and make a determination as to whether it is a safe alternative or unsafe alternative for a class I or class II substance before the substitute hits the marketplace.² The EPA

² During the 1994 rulemaking, EPA stated its intent to apply the 90-day advance reporting requirement to new substitutes for class II

and the National Resources Defense Council contend that EPA's 1994 comment only pertained to the 90-day advance reporting – and concomitant – review requirements of the SNAP program. Resp't's Br. 6; NRDC Intervenor's Br. 13. Thus, when the agency stated that "Section 612(c) authorizes EPA to review all substitutes to Class I and II substances, but does not authorize EPA to review substitutes for substances that are not themselves class I or II substances," J.A. 50, EPA argues it meant only that 1) it could not require 90-day advance reporting of intended use and health data for certain second-generation substitutes by chemical manufacturers, and 2) the agency was not required to conduct an advance review before any such second-generation substitute hit the market. Thus, EPA contends that it never said, or meant to say, that EPA had no power whatsoever to review second-generation substitutes, either in response to a petition or on the agency's own accord. While the back and forth in the commentary during the 1994 rulemaking is not crystal clear, it appears to support the interpretation that EPA only intended to disclaim authority to "review" second-generation substitutes in the 90-day advance notification and review context, and only if the first-generation substitute was a non-ozone-depleting substance. *See id.* ("For example, if a hydrofluorocarbon (HFC) is introduced as a first-generation refrigerant substitute for either a class I (*e.g.*, CFC-12) or class II chemical (*e.g.*, HCFC-22), it is subject to review

substances, even though the statute only expressly mentions the advance reporting requirement in the context of substitutes for class I substances. J.A. 42. This deadline for review following advance notice and reporting is the same as in the petition process, where Congress required that EPA, within 90 days, to "grant or deny" a petition to add a substitute to, or remove a substitute from, either the safe alternatives list or the unsafe alternatives list for class I and class II substances. 42 U.S.C. § 7671k(d).

and listing under section 612. Future substitutions to replace the HFC *would then be exempt from reporting* under section 612 because the first-generation alternative did not deplete stratospheric ozone.” (emphasis added)).³

The majority also relies upon EPA’s statement in response to a 1995 petition by OZ Technology, Maj. Op. 12, but there the EPA appears to have disclaimed regulatory authority under SNAP if the substance is being proffered as a “**legitimate substitut[e]**” for a non-ozone-depleting substance, rather than as a substitute for a class I or class II ozone-depleting substance. J.A. 145, 412. EPA exerted regulatory authority over the petition because it found that OZ Technology submitted its proposed alternative as a substitute for CFC-12, an ozone-depleting substance, rather than as a substitute to HFC-134a, a non-ozone-depleting substitute. J.A. 412, 415. **This course of events seems to be consistent with the agency’s** position here. At any rate, petitioners concede that the HFCs they manufacture are substitutes for CFCs, which are ozone-depleting substances. Thus, petitioners do not stand in the same shoes as OZ Technology and they have not identified any statements where EPA has disclaimed authority to regulate HFCs or other direct substitutes for ozone-depleting substances such as CFCs.

I understand (and share) the majority’s concern that the Clean Air Act does not grant EPA the authority to take a

³ Similarly, in this same passage, EPA also stated “[w]here second-generation substitutes replace first-generation substitutes that are themselves ozone-depleters (e.g., HCFCs), these second-generation substitutes are bound by the same *notification and review requirements* under section 612 as first-generation substitutes to ozone-depleting chemicals.” *Id.* (emphasis added).

completely unbounded approach and thereby regulate “substitutes” for class I and class II substances forever. In my view, the regulation of substitutes under Section 612 requires that the traditional and ubiquitous ozone-depleting substance originally utilized for the specific end-use is still in service. Without the prerequisite of an ozone-depleting substance, there can be **nothing for the substitute to “replace.”** In other words, where ozone-depleting chemicals are no longer in existence or in use for a particular industry or end-use, then EPA cannot regulate substitutes for those end-uses under Section 612.

Here, petitioners claim that **“class I and class II substances have already been replaced” with respect to the 25 end-uses** addressed in the 2015 Rule. **Pet’rs’ Br. 20.** In support of this assertion, Petitioners rely on two examples. First, Petitioners state that in the motor-vehicle air conditioning sector, CFC-12, which is an ozone-depleting substance, had historically been used. *Id.* However, Petitioners claim that the record shows that by the mid-1990s, use of CFC-12 in the manufacture of new cars stopped in the United States, and manufacturers uniformly adopted HFC-134a as a substitute. *Id.* This statement is true as far as it goes, but it does not show that ozone-depleting substances are not still in use in the motor-vehicle air conditioning sector. Indeed, the record confirms **“some older vehicles may still be using CFC-12.”** J.A. 815. Thus, we cannot conclude that ozone-depleting substances are not still in **“use” in this sector.**

Second, Petitioners reference the commercial refrigeration industry, arguing that because the commercial refrigeration **industry has “transitioned away” from ozone-depleting substances,** such substances are no longer in use in this sector. *See Pet’rs’ Br. 21;* J.A. 528. This argument suffers from the same flaw as the motor-vehicle air conditioning argument. The fact that modern commercial refrigeration systems may not use

ozone-depleting chemicals does not mean that older refrigeration systems do not continue to use such substances, and the record indicates that ozone-depleting substances **remain in “use” in the commercial refrigeration industry.** J.A. 535. With respect to the other 23 challenged end-uses, Petitioners are silent and offer no support to prove that ozone-depleting substances have been completely eliminated in those sectors.

EPA responds to Petitioners’ claim, arguing that **“ozone-depleting substances are still being directly ‘replaced’ by approved alternatives,”** Resp’t’s Br. 21 n.8, and that **“as long as ozone-depleting substances are being used, any substitute designed to replace these chemicals is subject to review”** under Section 612, *id.* at 31 (alterations omitted). While EPA acknowledges that **“in some cases the use of ozone-depleting substances has ceased,”** it contends that ozone-depleting substances have not been completely eliminated such that a **“second-generation substitute world”** exists. *Id.* Petitioners failed to respond to this argument in their reply brief. Given that the burden is on Petitioners to demonstrate that EPA’s interpretation of Section 612 is unreasonable or statutorily impermissible with respect to these 25 end-uses, they have failed to show that the agency’s policy choice “runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Mtr. Vehicle Mfrs. Ass’n of the U.S., Inc. v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983).

In sum, I disagree with the majority’s **holding in Part II**, and concur with all remaining parts. I would find the word **“replace” sufficiently ambiguous to require a *Chevron* step two analysis.** Because I find that EPA’s interpretation of Section

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612 is reasonable, I would deny the petition for review on all grounds.

Message

From: Rachel Jones [RJones@nam.org]
Sent: 7/10/2017 2:41:33 AM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: Automatic reply: Meeting request

Sorry I missed you; I'm out traveling. If you need immediate assistance, please call 202-637-3000.

Thanks!

Rachel

Message

From: Lovell, Will (William) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B150BB6ADE640F68D744FADCB83A73E-LOVELL, WIL]
Sent: 7/10/2017 2:41:25 AM
To: Rachel Jones [RJones@nam.org]
CC: Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Ross Eisenberg [REisenberg@nam.org]
Subject: Re: Meeting request

Thank you, Rachel.

Sent from my iPhone

On Jul 9, 2017, at 7:15 PM, Rachel Jones <RJones@nam.org> wrote:

Alex and Will--

Forgive my delay, I have been out of the country.

I don't have access to my full notes for the meeting at the moment. However, topics should be heaviest on Air & Water; and then also include Chemical & Waste issues.

As for participants:

Me

Ross Eisenberg, NAM
Maryam Brown, Sempra
Bryan Zumwalt, ACC
Khary Cauthen, API
Jay Cranford, CGCN
Martin Edwards, INGAA
Brian Kelly, BKstrategies
Puneet Verma, Chevron
Geoff Moody, AFPM

Please let me know if there is anything else you might need and thank you!

Rachel

Rachel Jones

Direct
Cell

On Jul 6, 2017, at 4:11 PM, Dominguez, Alexander <dominguez.alexander@epa.gov> wrote:

Hey Rachel – Just following up on the attendees and topics. Appreciate it.

Alex

From: Rachel Jones [mailto:RJones@nam.org]
Sent: Tuesday, June 27, 2017 4:47 PM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: RE: Meeting request

My best estimate is 8 folks.

Rachel Jones

Ex. 6

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Tuesday, June 27, 2017 3:02 PM
To: Rachel Jones <RJones@nam.org>
Subject: RE: Meeting request

Perfect. Not a problem – do you believe it will be more than 5 from your side? Just need to know how large a conference room to reserve. Will send you a calendar invite shortly.

From: Rachel Jones [mailto:RJones@nam.org]
Sent: Tuesday, June 27, 2017 1:45 PM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: RE: Meeting request

Thanks Alex. I think this will take about an hour given the number of folks coming and breadth of issues, so can we do July 10th 2-3?

I'll get you a list of attendees as soon as I can see who can come along with topics.

Rachel Jones

Ex. 6

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Tuesday, June 27, 2017 11:14 AM
To: Rachel Jones <RJones@nam.org>
Subject: RE: Meeting request

Thank you Rachel! Let me know if any of these work on your end:

Monday, July 10th at 2:00, 2:30, or 4:15
Tuesday, July 11th at 10:00, 2:00, 2:30, 3:00, or 4:00

Additionally, I will just need a couple pieces of information from you:

- <!--[if !supportLists]--><!--[endif]-->List of attendees and the organization/company they are representing
- <!--[if !supportLists]--><!--[endif]-->Overview of topics to be discussed

Alex

From: Rachel Jones [mailto:RJones@nam.org]
Sent: Tuesday, June 27, 2017 11:00 AM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: RE: Meeting request

Circling back on this Alex. Thanks!

Rachel Jones
(202) 637-3175

From: Rachel Jones
Sent: Friday, June 23, 2017 9:36 AM
To: 'Dominguez, Alexander' <dominguez.alexander@epa.gov>
Subject: RE: Meeting request

Thanks Alex. The week of the 10th would be good. Monday or Tuesday?

Rachel Jones
Ex. 6

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Friday, June 23, 2017 8:58 AM
To: Rachel Jones <RJones@nam.org>
Subject: RE: Meeting request

Morning Rachel – Now it's my turn to apologize for the delay. Next week is already a little crazy. Would you be able to do the week of the 3rd or the 10th? If so, just let me know what works on your end.

Best,
Alex

Alex Dominguez
*Policy Analyst to the Senior Advisors to
the Administrator for Air and Water*
U.S. Environmental Protection Agency
Work: 202-564-3164 | Cell: **Ex. 6**

From: Gunasekara, Mandy
Sent: Monday, June 19, 2017 12:24 PM
To: Rachel Jones <RJones@nam.org>
Cc: Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: RE: Meeting request

I'm cc'ing Alex who can help set this meeting up. Sorry for delayed response!
Since we are talking about the reg priorities, have you talked to Brittany and Sam? Do you want to include them in on this meeting as well?

From: Rachel Jones [mailto:RJones@nam.org]
Sent: Tuesday, June 13, 2017 11:43 AM

To: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>

Subject: Meeting request

Mandy--

I hope you saw our submission on reg priorities. Would you have time to sit down with us and a few others to discuss?

Thanks for your consideration.

Rachel Jones

Direct [Ex. 6]

Cell [Ex. 6]

Message

From: Kime, Robin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7EF7B76087A6475B80FC984AC2DD4497-RKIME]
Sent: 6/28/2017 3:45:39 PM
To: Paul Balserek [pbalserek@steel.org]
CC: Lovell, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: Tomorrow

Flag: Follow up

Wonderful- very much appreciated!

From: Paul Balserek [mailto:pbalserek@steel.org]
Sent: Wednesday, June 28, 2017 11:41 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Lovell, William <lovell.william@epa.gov>
Subject: RE: Tomorrow

9:15 tomorrow morning is fine. Thanks very much, Robin!
Paul

From: Kime, Robin [mailto:Kime.Robin@epa.gov]
Sent: Wednesday, June 28, 2017 11:20 AM
To: Paul Balserek
Cc: Lovell, William
Subject: Tomorrow

Hi Paul,

My apologies but we've got to accommodate some changes to the schedule tomorrow and could use your help. Is there any way your folks could come in at 9:15 tomorrow morning? If they are in town Friday afternoon at three we could switch it to that but I realize folks may be traveling for the holiday. What do you think works best? Thanks very much for your help and patience.

Message

From: Paul Balsarak [pbalsarak@steel.org]
Sent: 6/28/2017 3:32:18 PM
To: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
CC: Lovell, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: Tomorrow

Thanks Robin. I'll check and get right back to you. Likely that tomorrow 9:15 will work, but let me check. I'll be in touch!
Paul

From: Kime, Robin [mailto:Kime.Robin@epa.gov]
Sent: Wednesday, June 28, 2017 11:20 AM
To: Paul Balsarak
Cc: Lovell, William
Subject: Tomorrow

Hi Paul,

My apologies but we've got to accommodate some changes to the schedule tomorrow and could use your help. Is there any way your folks could come in at 9:15 tomorrow morning? If they are in town Friday afternoon at three we could switch it to that but I realize folks may be traveling for the holiday. What do you think works best? Thanks very much for your help and patience.

Message

From: Reicherts, Elizabeth [elizabeth.reicherts@siemens.com]
Sent: 6/26/2017 4:47:11 PM
To: Lovell, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: EPA Meeting w/Siemens
Attachments: Siemens_InTheUS_infographic_4_27_17.pdf; Siemens_in_the_US_Fact_Sheet_4_27_17_FINAL.pdf
Flag: Follow up

Hi Will,

I have attached some documents that may help to further describe Siemens in the US. For the discussion itself we are hoping to achieve a few things:

- As these are Siemens Managing Board Members (including Lisa Davis who is both managing board, CEO Siemens Corp AND responsible for oil and gas globally – which she has headquartered in Houston) most of them are German with the exception of Lisa who is American – they are trying to get a true sense of EPA/the Administrator's priorities,
- how he is going to move those forward
- what that means in line with the overall Administration's priorities and
- ultimately how that fits within our business which includes a large energy business: oil and gas, power, LNG and renewables. Siemens' portfolio includes power plants and power-generating equipment, turbines for use as mechanical drives, compressors for industrial applications, power transmission and distribution systems, smart grid applications, and related instrumentation and control systems.

They are not coming with any specific request about the methane rule, etc. Hope this helps?

Best,
Liz

*Liz Reicherts
Head of US Government Affairs
Siemens Corporation
300 New Jersey Avenue, NW, Suite 1000
Washington, DC 20001
Phone: [] Ex. 6
Cell: [] Ex. 6*

From: Lovell, William [mailto:lovell.william@epa.gov]
Sent: Monday, June 26, 2017 11:14 AM
To: Reicherts, Elizabeth (GM GA US)
Subject: EPA Meeting w/Siemens

Liz,

I am gathering materials for your group's meeting with the EPA. Do you have any information for background that could help foster discussion? Any handouts, for example, would be greatly appreciated.

Thanks,

Will Lovell
Policy Assistant, Office of Policy
U.S. Environmental Protection Agency
(202) 564-5713
Lovell.William@epa.gov

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An overview of Siemens' divisions, its core businesses and other U.S. recognition:

POWER & GAS

For over a century, Siemens has set the standard for excellence in power generation, transmission and distribution. Siemens continues to build on that proud tradition, using engineering expertise and global leadership in technology to provide innovative solutions for U.S. customers – from utilities, to the industrial space, to oil and gas companies. For power generation and delivery, Siemens' portfolio includes power plants and power-generating equipment, turbines for use as mechanical drives, compressors for industrial applications, power transmission and distribution systems, smart grid applications, and related instrumentation and control systems.

Siemens Power and Gas hub for the Americas is based in Orlando, Florida, and its global Oil & Gas Headquarters is located in Houston, Texas – serving the global Oil & Gas sector from the “Energy Capital of the World”. Siemens has major manufacturing and service operations across the U.S., including the Charlotte Energy Hub, which manufactures and services advanced fossil power generation equipment, such as gas and steam turbines and generators; a steam turbine plant in Burlington, Iowa; and factories in New York state that produce steam turbines and compressors.

Through the 2015 acquisition of Dresser-Rand and the 2014 acquisition of the Rolls-Royce Energy aero-derivative gas turbine and compressor business, Siemens is positioned as the most complete, end-to-end rotating equipment and process automation provider in the market. By combining expertise in automation, electrical systems, data analytics, and service with these established providers, Siemens is able to offer a much broader range of products, services and solutions to meet customer needs – particularly in the oil and gas industry and in the field of distributed generation.

Examples of major business:

- With the U.S. in the midst of an energy revolution, Siemens is the technology partner for the Holland Energy Park – a community-based initiative in Holland, Mich., to construct a modern and efficient natural gas combined cycle power plant. Holland Energy Park will harness clean-burning, low-cost American natural gas to benefit its customers, cutting greenhouse gas emissions by about half. For this innovative project, which will also expand Holland's downtown snowmelt system, Siemens is supplying two SGT-800 gas turbines and one SST-400 steam turbine, low and medium voltage power equipment, as well as a long-term service contract for the gas turbines.
- As part of the trend toward decentralized energy in the United States, Siemens provided Wesleyan University with an innovative combined heat and power (CHP) system that serves as the primary heat source for the university's athletic facility – helping to save the school an estimated \$1,000 a day from lower gas and electricity usage.
- The Dresser-Rand business, part of Siemens Power and Gas Division, supplied a Guascor gas engine for use in an advanced gasification bioenergy plant at Lockheed Martin's Owego, NY, facility – powering operations at the plant and advancing the company's global waste-to-energy initiative. The advanced gasification system uses Concord Blue technology to gasify wood chips or municipal solid waste, converting the organic waste into fuel for the gas engine. The engine in turn produces electricity that is used to offset energy costs.
- As America continues to turn to cleaner-burning, low-cost natural gas, Siemens has been selected to deliver world-class power generation equipment for seven Panda Power Funds projects since 2012 – with sites in Texas, Pennsylvania, and Virginia.
- The Dresser-Rand business delivered power generation equipment for a combined cycle power plant for the Shell Appomattox deep-water oil and gas floating production platform. The platform will be located 80 miles off the coast of Louisiana in the Gulf of Mexico and is slated to start production around the end of this decade.

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- To help ensure grid stability in New York City, Siemens is filling an order from Macquarie Infrastructure Corporation for the installation of additional aeroderivative gas turbines for the Bayonne Energy Center (BEC) in New Jersey. BEC delivers power through a dedicated 6.5 mile long underwater transmission cable to the Consolidated Edison Gowanus substation in Brooklyn to meet the electricity needs of over 500,000 homes and businesses in New York City. With aeroderivative technology, the flexible BEC plant can produce full power from a standing start in less than ten minutes of receiving a request from the power distributor.

SIEMENS GAMESA RENEWABLE ENERGY

Siemens Gamesa is the separately managed wind business of Siemens AG. Siemens Gamesa is a leading supplier of reliable, environmentally-friendly and cost-efficient renewable energy solutions. Driving down the cost of wind power is Siemens' key target as we strive to make renewable energy fully competitive with conventional energy sources. With nearly 6,000 wind turbines installed in the United States – capable of producing clean, renewable power for more than 4.2 million households every day – Siemens provides highly reliable and cost-efficient wind turbines to meet both business and environmental needs. In the U.S., Siemens manufactures wind turbine blades at a factory in Fort Madison, Iowa, and assembles nacelles and rotors at a production site in Hutchinson, Kansas. Siemens has a wind turbine R&D competence center in Boulder, Colorado.

For the wind power sector, Siemens currently provides service and maintenance for more than 3,200 installed wind turbines in the U.S. and more than 9,900 globally. In 2013, Siemens opened a state-of-the-art Wind Service Training Center in Orlando, a hub that provides highly advanced technical and safety training for installation and service technicians working at wind energy projects located throughout the Americas.

Examples of major business:

- Designed largely at Siemens' aerodynamic engineering center in Colorado, the new SWT-2.5-120 turbine will be produced at Siemens' factories in Iowa and Kansas starting in 2017. The new blade was designed with the goal of increasing energy production for sites with medium to low wind conditions, which currently comprise much of the U.S. market.
- Siemens Gamesa provided MidAmerican Energy with 448 wind turbines for five wind projects in Iowa. With a total capacity of 1,050 megawatts (MW), this represents the largest order for onshore wind turbines for Siemens in the U.S.
- In 2014, Siemens Gamesa signed a long-term service agreement with MidAmerican Energy to provide service and maintenance for 958 SWT-2.3 turbines at 12 wind projects in Iowa. Combined, these 12 wind projects have the capacity to generate more than 2.2 GW, enough to provide approximately 665,000 average U.S. homes with clean energy.
- Siemens Gamesa recently completed an order from Pattern Energy Group Inc. to supply, support installation and provide long-term service for 65 wind turbines for the Amazon Wind Farm located near Fowler, Ind.
- In an effort to use innovation to expand wind power in the U.S., Siemens Gamesa introduced a concrete wind turbine tower technology that is designed to capture stronger winds at higher altitudes – resulting in more potential energy production and increased project revenue for customers. Siemens developed this concrete tower technology through prototype testing in Texas and a subsequent single commercial turbine in Iowa.

POWER GENERATION SERVICES

With a broad spectrum of innovative products and services, Siemens has developed a number of

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advanced, data-driven service offerings that combine big data with the company's comprehensive domain expertise to support its industrial, oil and gas, and electric utility customers, ensuring reliability and optimal performance. Siemens' extensive national network of service technicians is able to quickly and comprehensively offer expert service to maximize the lifecycle of power generation equipment, helping to ensure reliability and prevent downtime.

With a global headquarters in Orlando, Florida, Siemens continually looks for ways to increase the performance of customers' operating plants. The Siemens Power Generation Services Division has been advancing the development of digital trends, building upon its more than 20 years of experience collecting and analyzing data as part of its power diagnostics services. Through digitalization and other advanced technologies, Siemens can increase the efficiency and capacity of existing power plants, enabling them to generate substantially more electricity with the same amount of fuel, which pays off both economically and environmentally.

Examples of major business:

- The acquisition of Dresser-Rand and Rolls-Royce's former energy business has already expanded the installed base of Siemens products in the energy business by around 100,000 units to more than 140,000 units in fiscal 2015. From the end of fiscal 2014 to the end of the first half of fiscal 2016, the order backlog at Power Generation Services had grown by 28 percent.
- In addition to delivering world-class power generation equipment for seven Panda Power Funds natural gas-fired power plants since 2012, Siemens also provides long-term service for these projects, with sites in Texas, Pennsylvania, and Virginia.
- In 2015, Siemens was awarded a long-term service contract for gas turbines at the new Holland Energy Park combined cycle power plant in Holland, Mich. This forward-leaning energy project, slated for commercial operation in 2017, provides sustainable power while also bolstering the city's innovative snowmelt system and serves as a model for how a community can address its power generation needs.

ENERGY MANAGEMENT

Siemens Energy Management helps to manage the power chain from creation to consumption, providing technologies for the economic, reliable and intelligent transmission and distribution of electrical power. Across the low-voltage and distribution power grid level, Siemens designs and manufactures smart grid and energy automation technology, power supply for industrial plants, and high-voltage transmission systems. In the U.S., Siemens is providing intelligent technologies to customers including Microsoft, California Independent System Operator, American Electric Power, Con Edison, Hudson Transmission Partners, and Holland Energy Park. Siemens has manufacturing hubs in Jackson, Miss.; Wendell, N.C.; Spartanburg, S.C.; Grand Prairie, Texas; Pomona, Calif.; Ft. Worth, Texas; and Heber Springs, Ark.

Examples of major business:

- Siemens is providing Con Edison, the utility that powers New York City and local areas, with six mobile resiliency transformers to help replace units within days rather than weeks in times of extreme weather like hurricanes or other major substation events. The mobile resiliency transformers will allow Con Edison to respond to these events where multiple transformers may be impacted and normal spares or system redundancy may not be able to address the issues. Con Ed also chose Siemens to provide its meter data management platform to support the utility's smart meter deployment initiative.
- Blue Lake Rancheria, a Native American reservation in Northern California, and Humboldt State University's Schatz Energy Research Center are partnering with Siemens to build a low-carbon community microgrid. The company's microgrid management software will enable the Rancheria to manage and operate on-site clean power generation sources, including a biomass plant, fuel

cell, battery storage and diesel generators to power the 100-acre reservation and keep electricity flowing to critical sites, such as the Red Cross Safety Shelter, in times of extreme weather.

- California ISO is relying on Siemens software to operate its growing Energy Imbalance Market (EIM). Siemens software is a key component of the EIM system that allows the ISO to analyze the energy requirements of the grid every five minutes and automatically determine the lowest-cost generation to meet demand while maintaining the security of the grid.
- Holland Energy Park will depend on critical low and medium voltage power equipment from Siemens to help power its new combined cycle power plant in Holland, Mich. The local municipal utility, Holland Board of Public Works, is replacing an aging coal-fired plant with a new fuel efficient modern power plant, slated for commercial operation in fall 2016. Siemens will also be providing gas and steam turbines for the plant that will use waste heat from the circulating water system for use in an expanding downtown snowmelt system.

BUILDING TECHNOLOGIES

Energy efficiency is no longer just measured through “greenness” but now also through “intelligence.” Technology and data-based services are helping cities – as well as major campuses, enterprises, hospitals and data centers – monitor energy usage and integrate building automation solutions for enhanced energy efficiency, reliability, and safety. Siemens’ Building Technologies (based outside of Chicago in Buffalo Grove, Ill.) is the North American market leader for safe and secure, energy-efficient and environmentally-friendly buildings and infrastructure. As a technology partner, service provider and system integrator, Building Technologies has offerings for fire protection, life safety and security as well as building automation, heating, ventilation and air conditioning (HVAC), and energy management. Since 1995, Siemens has helped modernize nearly 7,000 buildings worldwide, highlighted by the world’s tallest green skyscraper, in Taipei, and important American landmarks such as the new World Trade Center Memorial, the Times Square building, Carnegie Hall, Walt Disney World and the Mount Vernon estate.

Examples of major business:

- The **Louisiana Stadium and Exposition District (LSED)** and Siemens are working together to implement technological advancements and energy efficiency upgrades at the Mercedes-Benz Superdome. The recently completed performance contract, which was structured at no initial cost to the LSED, provides improvements to the stadium’s lighting, temperature systems, and energy management platform. This project will not only result in cost savings, but will also provide a better experience for fans, players, and performers.
- Under a 15-year performance contract, Siemens has begun working on infrastructure improvements for **Orem, Utah**. Expected to save the city an estimated \$11.4 million in energy and operational cost savings and capital cost avoidance, the initial project phase of this performance contract will allow Orem to use new technologies to make necessary capital improvements to meet the needs of its growing population.
- Siemens has implemented an integrated physical security solution throughout **Port Manatee** in Tampa Bay, Fla., the closest U.S. deep-water seaport to the Panama Canal. The system combines access control and physical security infrastructure management technologies, allowing the port, which moves approximately 8 million tons of cargo annually, to streamline its processes and increase efficiency by enabling officials to track the movement of goods.
- Siemens is the technology partner and infrastructure provider for **Sterling Ranch**, located on 3,400 acres in Colorado. Once it’s fully developed, the sustainable, mixed-use, master-planned community will be home to 12,050 housing units, 2 – 3 million square feet of commercial space, and more than 1 million square feet of institutional space. Siemens’ Intelligent Infrastructure Solutions (I2S) will combine a comprehensive command control and communication for their

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buildings' physical infrastructure; data-driven intelligence and advanced facility-related analytics; and regular service of all components throughout the buildings' and infrastructure's lifecycle.

MOBILITY

Siemens Mobility provides efficient and integrated technologies, products and services to enable the safe and reliable transportation of people and goods by rail and road. Siemens designs and manufactures across the entire spectrum of rolling stock, including commuter and regional passenger trains, light rail and streetcars, metros, locomotives, passenger coaches and high-speed trainsets. In the U.S., Siemens provides rail vehicles, locomotives, components and systems to more than 25 agencies in cities such as Washington D.C., New York, Boston, Seattle, Philadelphia, Denver, Salt Lake City, Minneapolis, Houston, Portland, Sacramento, San Diego, St. Louis, Atlanta and Charlotte. Cities also rely on Siemens to provide traction-power substations and electricity transmission, as well as signaling and control technology for freight and passenger rail and transit systems. Siemens has transportation manufacturing hubs in: Sacramento, Calif.; Louisville, Ky.; Marion, Ky.; and Pittsburgh, Pa.

Examples of major business:

- Siemens has been manufacturing rail vehicles in Sacramento for more than 30 years. In 2016, the 1,000-person plant completed its first full high-speed trainset for Brightline, the new high-speed service that will connect Miami and Orlando. The plant is manufacturing new clean diesel-electric locomotives for several state DOTs in the Midwest, West and East; light rail vehicles for many cities, including for San Francisco, Siemens' largest light rail vehicle contract ever in the U.S.; and new electric locomotives for the Southeastern Pennsylvania Transportation Authority. Siemens was also recently chosen to build new light rail vehicles for Seattle, the largest contract in Sound Transit history, San Diego, the Twin Cities, and new advanced technology streetcars for Charlotte.
- Siemens, as a member of the Tampa-Hillsborough Expressway Authority (THEA) team, has been chosen by the U.S. Department of Transportation (DOT) to provide innovative vehicle-to-infrastructure (V2I) technology for Tampa's new Connected Vehicle pilot project. Siemens V2I technology will enable vehicles and pedestrians to communicate with traffic infrastructure such as intersections and traffic lights in real-time to reduce congestion, specifically during peak rush hour in downtown Tampa. The technology will also significantly help improve safety and reduce greenhouse gas emissions. This is one of three projects funded by the USDOT to pilot next-generation technology in infrastructure and vehicles that can impact unimpaired vehicle crashes, which make up 80 percent of the crashes on the road.
- The Sacramento Regional Transit District (RT) is operating newly-refurbished light rail vehicles by Siemens on its Blue Line. The vehicles will increase capacity on the line and throughout the RT light rail system in order to maintain service levels. Siemens has refurbished a total of 21 vehicles for Sacramento RT that will add approximately 15 years of additional useful life to the vehicles.
- Siemens has been chosen by the Metropolitan Transportation Authority (MTA) to install Communications-Based Train Control (CBTC) on the Queens Boulevard Line, one of the busiest subway lines on the New York City Transit system. The radio-based CBTC technology provides real-time data on vehicle position and speed conditions, allowing system operators to safely increase the number of vehicles on a rail line. This results in greater frequency of train arrivals and allows MTA to accommodate more passengers on its system. In addition to the new system on the Queens Boulevard line, Siemens successfully installed CBTC technology on the Canarsie "L" line that has allowed MTA to handle and sustain increasing ridership on the line over the last 20 years.
- Ann Arbor, MI has been named by Siemens as the company's First Center of Excellence for Intelligent Traffic Technologies and will provide the city with the latest innovative hardware and

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software technology to help expand the city's smart traffic infrastructure. Siemens' technology and updates to Ann Arbor's existing traffic systems will help improve the commute, game day, and travel experience. These systems will allow Ann Arbor to respond and adapt more quickly and intelligently, in real-time, to improve traffic flow and safety.

DIGITAL FACTORY

Siemens Digital Factory offers a comprehensive portfolio of seamlessly-integrated hardware, software and technology-based services to support manufacturing companies worldwide in enhancing the flexibility and efficiency of their manufacturing processes and reducing the time to market of their products.

Siemens PLM Software, a business unit of the Siemens Digital Factory Division, is a leading global provider of product lifecycle management (PLM) and manufacturing operations management (MOM) software, systems and services with over 15 million licensed seats and more than 140,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with its customers to provide industry software solutions that help companies everywhere achieve a sustainable competitive advantage by making real the innovations that matter.

Examples of major business:

- To achieve a shorter time to market without sacrificing quality and to meet market demands, sports car manufacturer Maserati went digital and worked with holistic manufacturing solutions, choosing Siemens to cover their entire industrial value chain. Siemens supports Maserati along the complete product development and production process from product design to production planning, engineering, production execution and services. Through efficiently merging the virtual and real worlds, the Italian automobile manufacturer reduced its development time by 30 percent and tripled its production.
- Ford Motor Company Powertrain implemented Siemens Digital Enterprise solutions to improve its manufacturing process. Ford is using Teamcenter to create a "digital thread" from product development through manufacturing, reducing development times by up to 40 percent. Ford is one of the very few automakers that has a direct connection between development information and the product in service. The Teamcenter-based "In Vehicle Software Management" (or IVS) solution is able to identify the exact software configuration on any vehicle while in service at the garage, allowing a very cost efficient update of a vehicle's software. This solution eliminated the need for replacement of processing units and allowed Ford to save over 100 million dollars in three years of operation.
- Siemens partnered with Kia Motor Manufacturing Plant of Georgia in September 2016 for a community and industry event. At the event, DF, in partnership with a local distributor, AWC, Inc., announced the donation of \$100,000 in automation hardware and expert training to support career pathways in manufacturing and engineering at the THINC College & Career Academy located in LaGrange.
- Republic Services, Inc., an industry leader in U.S. recycling and non-hazardous solid waste, recently opened its Southern Nevada Recycling Center in North Las Vegas, a \$37 million facility that is the largest and smartest residential recycling center in North America, and capable of processing 70 tons of recyclable material per hour. Siemens, in partnership with CP Group, a leader and supplier of automated turn-key processing and sorting systems for material recovery facilities, provided automation solutions with advanced functionality, yielding high levels of productivity, efficiency, sustainability, reliability and safety.
- Stratasys Ltd. (Nasdaq:SSYS) and Siemens entered a formal partnership to integrate Siemens' Digital Factory solutions with Stratasys' additive manufacturing solutions. The partnership lays the foundation for the two companies to fulfill their shared vision of incorporating additive manufacturing into the traditional manufacturing workflow, helping it to become a universally

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recognized production practice which can benefit multiple industries, including aerospace, automotive, transportation, energy and industrial tooling.

- Siemens and IBM will integrate IBM's Watson Analytics and other analytics tools, powered by Cognos Analytics, into MindSphere, the cloud-based Siemens operating system for the Internet of Things. MindSphere enables industrial enterprises to improve the efficiency of systems through the acquisition and analysis of large quantities of production data.
- To achieve a distinctive marriage of form and function, **Black Diamond Equipment**, a world leader in climbing, skiing and mountain gear, relies on NX™ computer-aided design (CAD) software from Siemens PLM Software. The advanced modeling and design capabilities of NX software help the company engineer lightweight performance into a diverse product line. Top athletes and novices alike trust their lives to Black Diamond's products, which inspire confidence with their engineered styling and ergonomics.
- **Firewire Surfboards**, founded by expert surfers in 2005 and headquartered in Carlsbad, California, produces leading-performance boards, and maintains a competitive advantage through the use of innovative materials and construction techniques. NX™ software, a computer-aided design and manufacturing (CAD/CAM) solution from Siemens PLM Software, has helped Firewire revolutionize surfboard design and production. NX software has helped Firewire dramatically improve design and production efficiency and get its surfboards to market more quickly by enabling them to create re-usable design templates that reduce design time for each board from two hours to less than five minutes. The precise geometry is used to create numerical control programs for efficiently machining the components.
- As the golf club industry moved toward an engineering centric approach for golf club design, it accelerated the rate of new product introduction and challenged companies to speed up design processes. For instance, in just the last few years, the lifecycle of a golf club at **Callaway Golf** has gone from two to three years to 10 to 16 months. As a result, the company needed a software platform that would enable it to design, prototype and test products quickly and precisely. Callaway turned to Siemens PLM Software to provide the tools to meet these challenges. Designers use NX™ CAD software to dream up more complex clubs; engineers use NX CAE to analyze club face thickness; machinists use NX CAM to make push-button prototypes, and they all use Teamcenter® software to manage the entire process.

Siemens PLM software highlights:

- No less than 18 of the top 20 aerospace and defense OEMs use solutions from Siemens PLM Software.
- All of the top 20 aircraft engine manufacturers use solutions from Siemens PLM Software.
- Siemens PLM Software is now used by 29 of the world's top 30 automotive OEMs.
- Nearly 85 percent of the top 50 Tier One auto suppliers use solutions from Siemens PLM Software.
- Seven of the leading shipbuilders in the world use solutions from Siemens PLM Software to create "Digital Shipyards" and three more digital transformations are underway.

PROCESS INDUSTRIES & DRIVES

Siemens Process Industries & Drives helps customers increase productivity, safety, reliability, efficiency and time-to-market for plants and processes with innovative, integrated technologies across the entire lifecycle. With a deep understanding of individual market segments, Siemens helps customers respond

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quickly and confidently to new market requirements and challenges, strengthening their competitiveness. The business is headquartered in Alpharetta, Ga., just 40 minutes north of Atlanta.

There are also key locations and manufacturing sites in Elgin, Ill.; Broussard, La.; Cincinnati, Ohio; Bartlesville, Okla.; Houston and Arlington, Texas; New Kensington, Spring House and Pittsburgh, Pa.; and Rothschild, Wis.

Examples of major business:

- Did you know that the largest recycled containerboard mill in North America can be run from a mobile device? Siemens helped Greenpac Mill LLC, a Cascades Inc. affiliate, to realize its vision for the digital future of papermaking. Greenpac's new 250,000-square-foot, \$470 million mill in Niagara Falls, N.Y. employs fully-integrated Siemens solutions for electrification, automation and digitalization from fiber through converting.
- E-Power, operator of a heavy fuel oil power plant in Cité Soleil, Haiti, realized it needed to upgrade its plant's control system to maintain the facility's reliability and provide stable electricity delivery. Prism Systems Inc., a system integrator, assisted E-Power with its software and controls upgrade of Siemens solutions, including Simatic PCS 7, Version 8.1. The facility provides 35% of Port-au-Prince's total power. Beyond supplying power to the area, E-Power has helped support and encourage investment in Cité Soleil, a traditionally impoverished city as well as help support education in the area.
- Four Roses Bourbon has been a favorite among whiskey lovers since the 1880s. When the time came to upgrade its Lawrenceburg distillery, the company needed to ensure no productivity losses, nor quality issues. Four Roses selected Siemens PCS 7 (process control system), which provided more information, easier access to information, data transparency and better connectivity to manage distillery processes.
- Siemens provided Notre Dame Turbomachinery Facility with a 5 Megawatt Norwood Motor and 10 Megawatt Variable Frequency Drive, isolation transformer and associated MV Switchgear. The new \$36 million project is the nation's foremost research and test facility for advancing the technology used in the massive gas turbine engines used by commercial and military aircraft, power plants and the oil and gas industry.

HEALTHINEERS

Siemens Healthineers is committed to becoming the trusted partner of healthcare providers worldwide, enabling them to improve patient outcomes while reducing costs. Driven by our long legacy of engineering excellence and our pioneering approach to developing the latest advancements, we are a global leader in medical imaging, laboratory diagnostics, clinical IT, and services. Siemens Healthineers is dedicated to helping our partners be successful – clinically, operationally and financially – across the continuum of patient care.

With North American Headquarters in Malvern, Pennsylvania, Siemens Healthineers also has significant operations in Hoffman Estates, Ill., Knoxville, Tenn., Tarrytown, N.Y., Walpole, Mass., and Mountain View, Calif.

Examples of major business:

- Siemens Healthineers announced it will significantly invest around \$300 million in its Walpole, Mass. laboratory diagnostics manufacturing and research and development facility. The company plans to upgrade and expand its existing 500,000 square foot complex. The expansion—which will include manufacturing, warehouse, office and lab space—is set to begin in the summer of 2017.

- IBM and Siemens Healthineers announced a five-year, global strategic alliance in Population Health Management (PHM) that aims to help hospitals, health systems, integrated delivery networks, and other providers deliver value-based care to patients with complex, chronic and costly conditions such as heart disease and cancer. The health-focused alliance is the first of its kind for the companies and marks the entry of Siemens Healthineers into PHM. Siemens Healthineers and IBM Watson Health intend to help healthcare professionals navigate unprecedented changes propelled by a growing volume and diversity of health data, an aging global population, increasing prevalence of chronic diseases, changes in healthcare payment models, and the digitization and consumerization of healthcare.
- In November 2016, Siemens Healthineers announced the launch of the CE-marked Atellica COAG 360 System, a fully automated high-volume coagulation analyzer designed to streamline and unify hemostasis testing. The Atellica COAG 360 System is the first analyzer to unify five methodologies on one testing platform—clotting (optical and optomechanical), chromogenic, immunologic, high-sensitivity luminescence based immunoassay (LOCI) technology, and platelet aggregation testing. This unification enables laboratories to potentially replace up to three stand-alone systems with just one analyzer, saving space, simplifying inventory management and reducing maintenance—reducing the overall cost of ownership.
- The FDA granted Siemens Healthcare Diagnostics Inc. (Siemens Healthineers) an Emergency Use Authorization (EUA) for its real-time PCR Zika Virus assay, the VERSANT® Zika RNA 1.0 Assay (kPCR) Kit. With respect to Zika in vitro diagnostic tests, the FDA was authorized to issue EUAs to allow for use of unapproved medical products or unapproved uses of approved medical products when, among other circumstances, there are no adequate, approved, and available alternatives and certain additional criteria are met. The VERSANT® Zika RNA 1.0 Assay (kPCR) Kit is capable of detecting the presence of Zika virus, which can be an earlier indicator of Zika virus infection than anti-Zika antibodies. The molecular test is validated for plasma, serum, and urine (collected alongside a patient-matched serum or plasma specimen) from individuals meeting CDC Zika virus clinical criteria and/or CDC Zika virus epidemiological criteria, and is designed to run on the Siemens VERSANT® kPCR Sample Prep automated platform, along with several commercially available thermal cyclers.
- Siemens Healthineers received 510(k) clearance for the SOMATOM Drive computed tomography (CT) system, a dual source scanner designed to drive precision in diagnostic imaging across a wide range of clinical disciplines – from pediatrics and emergency medicine to cardiology and oncology – as well as deliver a new level of quality in patient care with the potential to reduce examination time, preparation, and follow-up care.
- Siemens Healthineers received 510(k) clearance from the FDA for the SOMATOM Confidence RT Pro computed tomography (CT) scanner, with features dedicated to radiation therapy (RT) planning. The dedicated CT scanner delivers RT images that enable precise contouring and personalized dose calculation while eliminating unnecessary workflow steps.
- Siemens Healthineers received 510(k) clearance for two features added to its established PURE platform to simplify the adoption and utilization of advanced features on the company's Artis zee, Artis Q, and Artis Q.zen angiography systems. Aiding clinicians in endovascular aneurysm repair (EVAR), *syngo* EVAR Guidance offers automated detection of vessel walls on computed tomography (CT) datasets as well as automatic placement of landmarks for 3D image guidance. Additionally, *syngo* EVAR Guidance suggests the optimal angulation of C-arms for precise deployment. Enabling better treatment of highly challenging chronic total occlusions (CTOs), *syngo* CTO Guidance automatically segments coronary CT angiography (CTA) images in addition to providing procedural guidance.
- The FDA cleared the noninvasive SEEit prostate magnetic resonance imaging solution from Siemens Healthineers, which enables users of the company's MAGNETOM Aera 1.5T and

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MAGNETOM Skyra 3T MRI systems to perform a routine prostate exam in just 10 minutes without using an endorectal coil, which can cause patient discomfort.

SIEMENS FINANCIAL SERVICES

Siemens Financial Services, Inc. (SFS) is the U.S. arm of Siemens' Financial Services division, an international provider of business-to-business financial solutions. SFS helps facilitate investments, providing commercial finance, project and structured finance, and corporate finance with specific asset expertise in the energy, healthcare, industry, and infrastructure markets. SFS supports Siemens, as well as other companies, with capital needs and acts as an expert manager of financial risks within Siemens. With financing expertise and industrial know-how, SFS creates value for customers and helps strengthen their competitiveness. As of September, 30, 2015, the total, global SFS assets amount to \$27.2 billion.

Examples of major business:

- Apex Clean Energy sought financing support for the construction of Kay Wind, an onshore wind facility located in Kay County, Oklahoma. SFS committed to fund up to \$80 million of the project's construction financing. The 299-MW project is expected to create enough clean energy to power approximately 100,000 average U.S. homes annually. This project also features 130 Siemens SWT 2.3-108 wind turbines.
- Community Health Systems, Inc. (CHS) sought to acquire Health Management Associates to become the largest hospital operator in the U.S. SFS participated at the Co-Manager level, committing \$105 million to the credit facility. This commitment contributed to the purchase, refinanced existing debt, and provided for future working capital needs that enabled CHS to support its largest acquisition to date. This financial investment provided CHS with increased economies of scale and further growth to have an improved healthcare network.
- Siemens Financial Services is also involved in energy savings performance contracting. SFS financed energy-saving measures at the Mercedes-Benz Superdome in New Orleans with a \$7 million municipal lease. This was the first financial project structure of its kind in the state of Louisiana. At the stadium, which has hosted seven NFL Super Bowl events in its 41-year history, Siemens Building Technologies installed state-of-the-art LED lighting, new cooling systems and building management software. The operator, the Louisiana Stadium and Exposition District, is expected to save an estimated \$6.5 million in power and operating costs over ten years.
- A longstanding Siemens' customer, Panda Power Funds, sought financial support to help invest in the 1,124 MW Hummel Station power plant located in Snyder County, PA. Scheduled to become operational in early 2018, the natural gas-fueled facility will supply power for more than one million households in large power markets in the Mid-Atlantic region, including Philadelphia and New York City. Partnering with Siemens Energy, SFS contributed a \$125 million equity investment in the project. SFS has participated in all seven of the recent Panda Power Funds projects, which also involved Siemens equipment and service, including facilities in Texas, Pennsylvania, and Virginia. For more information on SFS' work with Panda Power Funds, please refer here.
- A Siemens Financial Services' financing package supported the acquisition of the new Siemens SOMATOM Perspective CT scanner for Pueblo Radiology Medical Group. This financing solution supported a long-standing customer relationship, in which Siemens has provided over \$9 million in equipment and construction financing to the Santa Barbara-based medical imaging specialist since 2001. This joint partnership served to further improve patient care with health services, and enabled Pueblo Radiology to acquire one of the most economical CT scanners on the market.

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SIEMENS GOVERNMENT TECHNOLOGIES

A separately incorporated, independent, yet affiliated, U.S. company, Siemens Government Technologies, Inc. (SGT) is a channel to the U.S. federal government to access the full spectrum of Siemens' trusted and recognized solutions, products and services.

Examples of major business:

Notable 2016 ESPC wins by Siemens include:

- An award by the US Army Garrison Hawaii that will provide energy saving improvements that will generate almost \$3 million in annual cost savings to four bases in Hawaii.
- An award from the National Park Service (NPS) continues Siemens' energy and water conservation measures at national parks in the Washington, D.C. area. This second award builds on a \$29 million contract Siemens signed in 2014 that has already helped the NPS achieve annual savings of \$2 million in taxpayer dollars, 77 million gallons of water, 4,000 tons of CO2 emissions and nearly 6.5 million kwh of electricity.
- An award at the Bruceton, Pa. campus of the National Institute for Occupational Safety and Health (NIOSH), a sub-department of the Centers for Disease Control and Prevention, will reduce campus energy usage by 54 percent and water usage by 63 percent.
- An award with the U.S. Army Corps of Engineers will provide energy conservation measures such as boiler upgrades at the McAlester Army Ammunition Plant in McAlester, Okla.
- Two modifications to an existing Siemens' ESPC with the Corpus Christi Army Depot (CCAD) will address water and energy infrastructure needs and improve energy efficiency at the Pentagon's largest helicopter repair facility.

Installing Environmentally Friendly Hydroelectric Solutions

- Siemens will install power generator step-up (GSU) transformers for the Bureau of Reclamation at Davis Dam on the Colorado River and for the Army Corps of Engineers at Fort Peck on the Missouri River in Montana, helping to generate clean and reliable power.

Siemens Helping to Improve Reliability and Extend Service Life of U.S. Navy Oilers

- Siemens won the opportunity to modernize two additional U.S. Navy oilers in 2017 following successful modernization of the shaft generator control systems on two oilers in 2016. These modernization projects will improve their operations, reliability and efficiency.

SGT Dresser-Rand Integration Showing Results

- The Wellsville, NY facility produces steam turbines for the global energy and power generation industry and the U.S. Navy. Siemens was awarded a contract to provide new low-pressure air compressors (LPACs) on the USS FORT LAUDERDALE.
- SGT D-R was awarded over \$5 million from the U.S. Department of Energy's Water Power R&D program to develop a 1MW HydroAir turbine.

SIEMENS CORPORATE TECHNOLOGY

Corporate Technology shapes the future with a passion for research, technology and innovation.

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As a guidance provider, CT shapes Siemens' technology and innovation strategy, fosters business excellence at the company, monitors the operating units' innovative power and assesses disruptive changes in its core markets. As a partner at "eyes level," CT works closely with leading universities and institutes and makes new technologies and cross-domain applications available. As an internal service provider, CT supports the Siemens units with research and development services, protects intellectual property rights, and offers advice on improving processes and business practices.

Examples of major business:

- CT's Princeton, New Jersey site (founded in 1977) is Siemens' largest research and development center outside Europe. At this site, CT employees were honored by the Research & Development Council of New Jersey with the coveted Thomas Edison Patent Award and several Siemens Inventor of the Year awards, among others.
- Its Future Automation Lab serves as an Industry 4.0 test bed, pioneering innovations for industry.
- Siemens unveiled major renovations at its U.S. CT facility, modernizing and expanding the world-class research and development facility. The site now includes new, state-of-the-art labs that allow researchers to develop high-impact innovations to help CT's customers enhance their competitiveness.
- CT is home to hundreds of research scientists, engineers, consultants, and experts who provide technology solutions for Siemens businesses and work closely with Siemens' customers, government agencies, universities, and other organizations.

DRIVING INNOVATION

In October 2016, Siemens set up of a separate unit to foster disruptive ideas more vigorously and to accelerate the development of new technologies.

The unit's name, "next47," plays on the fact that Siemens was founded in 1847. The new unit has funding of \$1 billion for the first five years and will build on Siemens' existing startup activities. Independent but able to leverage the advantages offered by Siemens, next47 has offices in Berkeley, Shanghai and Munich and covers all regions of the world from those locations. It is open to employees as well as to founders, external startups and established companies that want to pursue business ideas in the company's strategic innovation fields.

DRIVING SUSTAINABILITY

Siemens is committed to acting in the best interest of future generations – with respect to the **economy**, the **environment**, and **society**.

Before the announcement of the global climate agreement in Paris in 2015, Siemens announced a bold objective: **to cut its greenhouse gas emissions in half by 2020 and to become carbon neutral by 2030.**

To achieve this decarbonization, Siemens is focusing on four different areas. First, its Energy Efficiency Program (EEP) is verifiably reducing energy consumption at the company's own buildings and manufacturing facilities. Second, increased use of distributed energy systems (DES) is optimizing energy costs at the company's locations and production plants. Third, Siemens is systematically employing low-emission vehicles and e-mobility concepts in its worldwide vehicle fleet. Fourth, the company is moving toward a clean energy mix by increasingly acquiring its electricity from sources that emit little or no CO₂ – such as wind power and hydroelectric power.

Over the next three years, Siemens plans to invest more than \$110 million to improve energy efficiency at offices and factories, and will require Leadership in Energy and Environmental Design (LEED)



certification for all of the company's new buildings.

Siemens has already made significant advances in reducing its carbon footprint. The company has cut its CO₂ emissions from **2.2 million tons in fiscal 2014 to 1.7 million tons in fiscal 2016.**

Siemens is also installing distributed and renewable-energy systems at a number of its facilities. As a model, the company will look to its rail manufacturing plant in Sacramento, Calif., where about 80 percent of total electricity is generated using solar energy.

Siemens expects these investments to pay for themselves in just five years and generate \$20 million in annual savings thereafter – demonstrating that cutting your carbon footprint is good business as well as good corporate citizenship.

Siemens' carbon neutral announcement is an extension of the company's long-standing commitment to applying the principles of sustainability across its value chain – designing sustainable products and solutions for industrial, commercial, municipal and institutional customers. Siemens' portfolio includes fuel efficient gas turbines, high-speed electric locomotives, digital grids, wind turbines, optimized drive technologies for manufacturers, resource-saving building automation, and energy efficient health care equipment.

With these and other technologies, in the last fiscal year Siemens' environmental portfolio enabled its customers and partners throughout the world to reduce their carbon dioxide emissions by 487 million tons – about ten times the annual amount of carbon produced in New York City.

In January 2017, Siemens was named the most sustainable company in the world by Corporate Knights.

Sustainability guides Siemens' over-arching commitment to thinking and acting in the interest of future generations – balancing people, planet and profit.

SIEMENS VETERANS INITIATIVES

Since 2011, Siemens has hired over 2,500 veterans. In March 2017, Siemens committed to hiring a **minimum of 300 U.S. military veterans per year for the next three years**, providing them with additional skills training to make them successful at performing roles at Siemens' various U.S. facilities.

Over 60 percent of veterans at Siemens work in STEM-related disciplines, which meet a critical need for the company's workforce' and to the U.S. workforce in general.

Siemens also earned the 2017 Military Friendly Employer designation by Victory Media, publisher of *G/ Jobs and Military Spouse* magazines.

Siemens also offers job training for U.S. military veterans with an engineering and manufacturing background as part of a national effort to assist veterans transitioning to the civilian workforce. The program, launched by Siemens product lifecycle management (PLM) software business in cities across the country, provides free training in the use of state-of-the-art digital lifecycle management and computer-aided design (CAD), computer-aided manufacturing (CAM) and computer-aided engineering (CAE) software technology. Through this effort, Siemens will invest up to \$17,000 per eligible veteran for access to training that will help enhance veterans' qualifications for skilled positions in a wide variety of manufacturing industries around the world, including automotive, aerospace, energy, high-tech electronics, and machinery. Upon completion of the training, veterans who participate in this initiative can also present themselves as qualified candidates for positions with Siemens or the 140,000 customers who use Siemens' PLM technology.

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THE SIEMENS FOUNDATION

The Siemens Foundation has invested more than \$100 million in the U.S. to advance workforce development and education initiatives in science, technology, engineering and math. Its signature programs include the Siemens Competition in Math, Science & Technology, the premier STEM research competition for high school students, as well as national partnerships with organizations such as the Aspen Institute, the National Governors Association, New America and Advance CTE to raise the perception of middle-skill employment opportunity and scale proven models for middle-skill STEM education. The Siemens Foundation's mission is inspired by a culture of innovation, research and continuous learning that is the hallmark of Siemens. Together, the programs at the Siemens Foundation are closing the opportunity gap for young people in the U.S. when it comes to STEM careers, and igniting and sustaining today's STEM workforce and tomorrow's scientists and engineers.

RANKINGS & RECOGNITION

- Siemens was ranked #1 on *Fortune's* World's Most Admired Companies list in the industrial machinery category.
- Siemens was ranked #21 on *Fortune's* Companies that are Changing the World list.
- In 2017, Siemens was named the world's most sustainable company by Corporate Knights.
- The Dow Jones Sustainability Index named Siemens as one of the most sustainable companies in its industry. For the 17th time in a row, Siemens was included in the DJSI World Index list, receiving a positive overall assessment by scoring 89 out of a maximum of 100 points.
- In 2016, Siemens was ranked #8 as the World's Most Attractive Employers, among engineering and IT students.
- In 2016, Siemens landed the 52nd spot on Interbrand's "Best Global Brands" list.
- In 2016, Siemens was recognized by the readers of Diversity / Careers in Engineering and Information Technology as a **Best Diversity Company**. Siemens has also been recognized as a **Top Fifty Company** for diversity by readers of *Woman Engineer* magazine.
- In 2016, Siemens was selected for the 14th straight year as a **Top Supporter of Historically Black Colleges and Universities** (HBCUs) by the deans of the 14 ABET accredited, HBCU engineering programs and the corporate-academic alliance Advancing Minorities' Interest in Engineering (AMIE).
- Siemens was listed as a **Top Employer** for the following majors by *The Black Collegian* magazine: Mechanical Engineering, Industrial Engineering, Electrical Engineering, IT / MIS, Accounting / MIS and HR.
- Siemens has earned the 2017 Military Friendly Employer designation by Victory Media, publisher of *GI Jobs and Military Spouse* magazines.
- Siemens was recognized with the 2016 Employer Support of the Guard and Reserve Patriot Award.

###

Please visit the Siemens U.S. newsroom at: news.usa.siemens.biz/.

To receive expert insights [sign up for the Siemens' U.S. Executive Pulse leadership blog](#).

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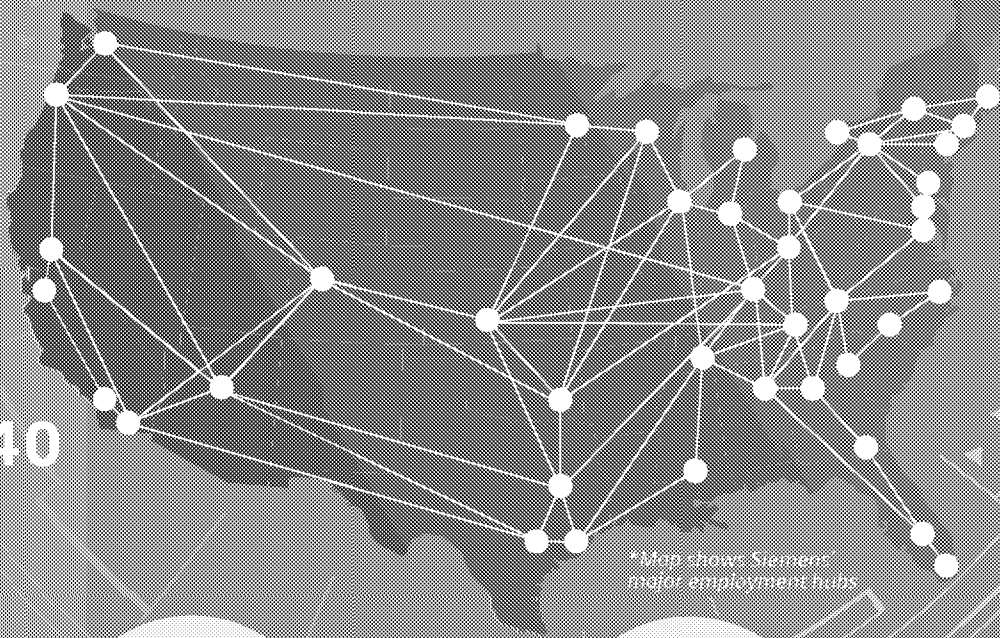
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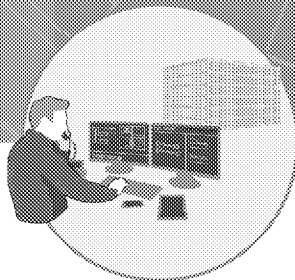
In just the past 15 years, Siemens has invested approximately \$40 billion in the U.S.



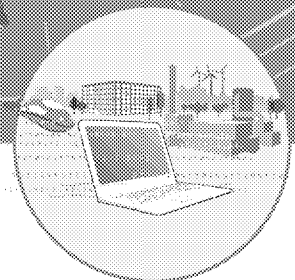
**Map shows Siemens' major employment hubs*



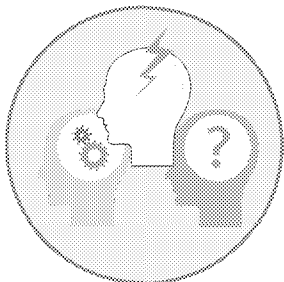
50,000
EMPLOYEES STRONG



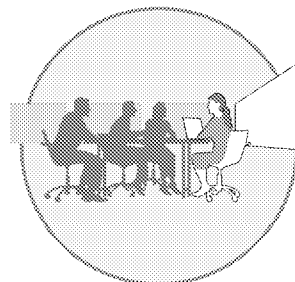
MORE THAN 60
MANUFACTURING SITES



OVER \$5 BILLION
IN ANNUAL EXPORTS



MORE THAN \$1 BILLION
INVESTED IN R&D ANNUALLY

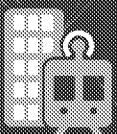


OVER \$50 MILLION
INVESTED IN WORKFORCE
TRAINING ANNUALLY



800,000 US JOBS
LINKED TO SIEMENS' FY15
GLOBAL BUSINESS OPERATIONS

Siemens will continue to deploy its innovative technologies to meet America's greatest challenges, particularly in the fields of:



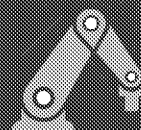
INFRASTRUCTURE



POWER
GENERATION &
MANAGEMENT



MOBILITY



INDUSTRIAL
MODERNIZATION



MEDICAL
SOLUTIONS

usa.siemens.com

Message

From: Kime, Robin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7EF7B76087A6475B80FC984AC2DD4497-RKIME]
Sent: 6/26/2017 3:50:16 PM
To: Paul Balserek [pbalserek@steel.org]
CC: Lovell, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: American Iron and Steel Institute

Thanks!

From: Paul Balserek [mailto:pbalserek@steel.org]
Sent: Monday, June 26, 2017 11:39 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Lovell, William <lovell.william@epa.gov>
Subject: RE: American Iron and Steel Institute

Yes, they are attached. And, I'm sorry, I should have noted that in my original email as those comments provide the basis for our meeting with Samantha.

Thanks
Paul

Paul Balserek
Vice President, Environment

American Iron and Steel Institute
25 Massachusetts Ave. NW, Suite 800
Washington, DC 20001

Ex. 6 (office)
(mobile)

From: Kime, Robin [mailto:Kime.Robin@epa.gov]
Sent: Monday, June 26, 2017 11:36 AM
To: Paul Balserek
Cc: Lovell, William
Subject: RE: American Iron and Steel Institute

Hi,
Thanks very much. Did you all submit reg reform comments to the docket?

From: Paul Balserek [mailto:pbalserek@steel.org]
Sent: Monday, June 26, 2017 11:23 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: American Iron and Steel Institute

Hi Robin,

We will not have any read ahead materials for this meeting.

The attendees list is:

Mike Long, Cliffs Natural Resources
Patrick Bloom, Cliffs Natural Resources
Tom Miller, Nucor
Todd Young, U. S. Steel
John Stinson, Evraz North America
Tom Wesolowski, Evraz North America
Tom Dower, ArcelorMittal
Julianne Kurdilla, ArcelorMittal
Katie Larson, SSAB Americas
Brett Smith, American Iron and Steel Institute
Colin Carroll, American Iron and Steel Institute
Paul Balserek, American Iron and Steel Institute

Thanks very much,
Paul

Paul Balserek
Vice President, Environment

American Iron and Steel Institute
25 Massachusetts Ave. NW, Suite 800
Washington, DC 20001

Ex. 6 (office)
(mobile)

From: Kime, Robin [<mailto:Kime.Robin@epa.gov>]
Sent: Tuesday, June 13, 2017 11:19 AM
To: Paul Balserek
Subject: RE: American Iron and Steel Institute

Hi
Thanks – let's do 6/29 at 10 am

Will you resend me the comments/read ahead material and the attendees 3 days prior to the meeting? We will get an invite out today.

From: Paul Balserek [<mailto:pbalserek@steel.org>]
Sent: Tuesday, June 13, 2017 8:31 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Paul Balserek <pbalserek@steel.org>
Subject: RE: American Iron and Steel Institute

Hi Robin,

Thanks for your patience. I'm just trying to double check one last thing. Could you please continue to hold:

6/28 at 11 or 1
6/29 at 10

Appreciate it, will get back to you asap.

Paul

From: Kime, Robin [<mailto:Kime.Robin@epa.gov>]
Sent: Thursday, June 08, 2017 5:32 AM
To: Paul Balsarak
Subject: Re: American Iron and Steel Institute

Wonderful! Ex. 6

Sent from my iPhone

On Jun 8, 2017, at 2:45 AM, Paul Balsarak <pbalsarak@steel.org> wrote:

Hi Robin, I just wanted to assure you I have not forgotten on this. Waiting for a few members to get back to me. Will email asap with final availability re the dates you sent. Leave early tomorrow from Taiwan to come home. Looking forward to that!
Hope you are well,
Paul

From: Kime, Robin [Kime.Robin@epa.gov]
Sent: Friday, June 02, 2017 9:21 PM
To: Paul Balsarak
Subject: Re: American Iron and Steel Institute

Excellent, thank you, have a safe trip!

Sent from my iPhone

On Jun 2, 2017, at 8:51 PM, Paul Balsarak <pbalsarak@steel.org> wrote:

Thanks Robin. I'll get back to you asap. I'm on work travel this week to Taiwan (yes, gonna eat lots of Kung Pow Chicken while I'm there ...and hoping to finally meet General Tso!) ... but I'll check in with my folks and get back to you. Have a great weekend,
Paul

From: Kime, Robin [Kime.Robin@epa.gov]
Sent: Friday, June 02, 2017 2:20 PM
To: Paul Balsarak
Subject: RE: American Iron and Steel Institute

Hi

Sounds good, let's take a look at these:

6/26 at 10 or 11
6/27 at 10 or 11
6/28 at 11 or 1
6/29 at 10 or 11 or 1
6/30 at 1 or 2

Thanks

From: Paul Balserek [<mailto:pbalserek@steel.org>]
Sent: Friday, June 02, 2017 1:52 PM
To: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: American Iron and Steel Institute

Hi Robin,

Thanks very much. I'll have several folks flying in for the meeting, so I'll need to check in with them and get back to you. Would it be possible to get some dates/times the following week as well? The week of the 19th is very busy for us.

Thanks much, have a good wkend.
Paul

From: Kime, Robin [<mailto:Kime.Robin@epa.gov>]
Sent: Friday, June 02, 2017 1:47 PM
To: Paul Balserek
Subject: FW: American Iron and Steel Institute

Hi
Would any of the following dates/times work for your folks?
6/19 at 3:00
6/20 at 10 or 11
6/22 at 10 or 11
6/23 at 1
Thanks.

From: Kime, Robin
Sent: Thursday, June 01, 2017 5:46 PM
To: Paul Balserek <
Subject: Re: Meeting Request

Email is fine. Samantha is traveling, starting Monday. back June 14th. What works after that and how many people?

Sent from my iPhone

On Jun 1, 2017, at 5:28 PM, Paul Balserek <pbalserek@steel.org> wrote:

Hi ... I'll try to call tomorrow. Any time better or worse?
Paul

From: Thomas Gibson
Sent: Thursday, June 01, 2017 11:58 AM
To: Dravis, Samantha
Cc: Bolen, Brittany; Paul Balserek
Subject: RE: Meeting Request

Thanks for the fast response, Samantha. There is not a rush, we need to give our member company folks notice in any event as they will have to travel here.

I am adding Paul Balsarak to the chain as I failed to cc him on the original. He will reach out to Robin to get the logistics started,.

Safe travels! Tom

Thomas J. Gibson
President and Chief Executive Officer
American Iron and Steel Institute
25 Massachusetts Avenue, NW
Suite 800
Washington, DC 20001
Phone: Ex. 6
Fax: 202.452.1039
Email: tgibson@steel.org

www.steel.org

From: Dravis, Samantha [<mailto:dravis.samantha@epa.gov>]
Sent: Thursday, June 01, 2017 11:22 AM
To: Thomas Gibson
Cc: Bolen, Brittany
Subject: RE: Meeting Request

Tom, of course! Happy to meet! Schedules are crazy right now, and I am leaving on Monday for an international trip until June 12th. But, I would love to visit after that. I would also like Brittany Bolen to join – she is the DAA in the Policy office and such a great asset. If you don't already know her, would love for you to meet.

Best,
Samantha

From: Thomas Gibson [<mailto:tgibson@steel.org>]
Sent: Thursday, June 01, 2017 11:05 AM
To: Dravis, Samantha <dravis.samantha@epa.gov>
Subject: Meeting Request

Dear Samantha,

I would like to see if several AISI members and I could come in and give you an overview of the environmental issues that are key to the steel industry. Following on Administrator Pruitt's well-received address at our annual meeting last week, I think the timing is ripe for such a discussion. We would greatly appreciate the opportunity to brief you on our issues as you work to prioritize the comments received from your May 15 public information request on regulatory reform. We would also like to learn more about the potential revival of the something like the old Sectors Strategies program. If you agree to this meeting, I can ask my VP for Environment, Paul Balsarak (cc'd), to work with your chief of staff, Robin, to get this set up.

Best, Tom

Thomas J. Gibson

President and Chief Executive Officer

American Iron and Steel Institute

25 Massachusetts Avenue, NW

Suite 800

Washington, DC 20001

Phone: [REDACTED] **Ex. 6**

Fax: 202.452.1059

Email: tgibson@steel.org

www.steel.org

Message

From: Paul Balserek [pbalserek@steel.org]
Sent: 6/26/2017 3:38:32 PM
To: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
CC: Lovell, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: RE: American Iron and Steel Institute
Attachments: AISI -- EPA Evaluation of Existing Regulations Public Comment - Final.pdf
Flag: Follow up

Yes, they are attached. And, I'm sorry, I should have noted that in my original email as those comments provide the basis for our meeting with Samantha.

Thanks
Paul

Paul Balserek
Vice President, Environment

American Iron and Steel Institute
25 Massachusetts Ave. NW, Suite 800
Washington, DC 20001

Ex. 6 (office)
(mobile)

From: Kime, Robin [mailto:Kime.Robin@epa.gov]
Sent: Monday, June 26, 2017 11:36 AM
To: Paul Balserek
Cc: Lovell, William
Subject: RE: American Iron and Steel Institute

Hi,
Thanks very much. Did you all submit reg reform comments to the docket?

From: Paul Balserek [mailto:pbalserek@steel.org]
Sent: Monday, June 26, 2017 11:23 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: American Iron and Steel Institute

Hi Robin,

We will not have any read ahead materials for this meeting.

The attendees list is:
Mike Long, Cliffs Natural Resources
Patrick Bloom, Cliffs Natural Resources
Tom Miller, Nucor
Todd Young, U. S. Steel
John Stinson, Evraz North America
Tom Wesolowski, Evraz North America

Tom Dower, ArcelorMittal
Julianne Kurdilla, ArcelorMittal
Katie Larson, SSAB Americas
Brett Smith, American Iron and Steel Institute
Colin Carroll, American Iron and Steel Institute
Paul Balsarak, American Iron and Steel Institute

Thanks very much,
Paul

Paul Balsarak
Vice President, Environment

American Iron and Steel Institute
25 Massachusetts Ave. NW, Suite 800
Washington, DC 20001

Ex. 6 (office)
(mobile)

From: Kime, Robin [<mailto:Kime.Robin@epa.gov>]
Sent: Tuesday, June 13, 2017 11:19 AM
To: Paul Balsarak
Subject: RE: American Iron and Steel Institute

Hi
Thanks – let's do 6/29 at 10 am

Will you resend me the comments/read ahead material and the attendees 3 days prior to the meeting? We will get an invite out today.

From: Paul Balsarak [<mailto:pbalsarak@steel.org>]
Sent: Tuesday, June 13, 2017 8:31 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Paul Balsarak <pbalsarak@steel.org>
Subject: RE: American Iron and Steel Institute

Hi Robin,

Thanks for your patience. I'm just trying to double check one last thing. Could you please continue to hold:

6/28 at 11 or 1
6/29 at 10

Appreciate it, will get back to you asap.

Paul

From: Kime, Robin [<mailto:Kime.Robin@epa.gov>]
Sent: Thursday, June 08, 2017 5:32 AM
To: Paul Balsarak
Subject: Re: American Iron and Steel Institute

Wonderful! Ex. 6

Sent from my iPhone

On Jun 8, 2017, at 2:45 AM, Paul Balserek <pbalserek@steel.org> wrote:

Hi Robin, I just wanted to assure you I have not forgotten on this. Waiting for a few members to get back to me. Will email asap with final availability re the dates you sent. Leave early tomorrow from Taiwan to come home. Looking forward to that!
Hope you are well,
Paul

From: Kime, Robin [Kime.Robin@epa.gov]
Sent: Friday, June 02, 2017 9:21 PM
To: Paul Balserek
Subject: Re: American Iron and Steel Institute

Excellent, thank you, have a safe trip!

Sent from my iPhone

On Jun 2, 2017, at 8:51 PM, Paul Balserek <pbalserek@steel.org> wrote:

Thanks Robin. I'll get back to you asap. I'm on work travel this week to Taiwan (yes, gonna eat lots of Kung Pow Chicken while I'm there ...and hoping to finally meet General Tso!) ... but I'll check in with my folks and get back to you. Have a great weekend,
Paul

From: Kime, Robin [Kime.Robin@epa.gov]
Sent: Friday, June 02, 2017 2:20 PM
To: Paul Balserek
Subject: RE: American Iron and Steel Institute

Hi

Sounds good, let's take a look at these:

6/26 at 10 or 11
6/27 at 10 or 11
6/28 at 11 or 1
6/29 at 10 or 11 or 1
6/30 at 1 or 2

Thanks

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Cc: Bolen, Brittany; Paul Balsarak
Subject: RE: Meeting Request

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Cc: Bolen, Brittany
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Sent: Thursday, June 01, 2017 11:05 AM
To: Dravis, Samantha <dravis.samantha@epa.gov>
Subject: Meeting Request

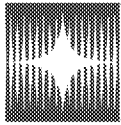
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www.steel.org

Thomas J. Gibson
President and CEO

May 15, 2017

Ms. Samantha K. Dravis
Office of Policy
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Response to Environmental Protection Agency's Request for Comment on the Evaluation of Existing Regulations (Docket ID No. EPA-HQ-OA-2017-0190)

Dear Ms. Dravis:

The American Iron and Steel Institute (AISI), on behalf of its U.S. producer member companies, appreciates this opportunity to comment on the Environmental Protection Agency's (EPA) Request for Comment on the Evaluation of Existing Regulations (82 Fed. Reg. 17793)(April 13, 2017). AISI serves as the voice of the North American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI also plays a lead role in the development and application of new steels and steelmaking technology. AISI is comprised of 18 member companies, including integrated and electric furnace steelmakers, and approximately 120 associate members who are suppliers to or customers of the steel industry. AISI's member companies are classified in the North American Industry Classification System (NAICS) in codes 3311 (Iron and steel mills and ferroalloy manufacturing) and 3312 (Steel product manufacturing from purchased steel). Additionally, member companies that mine iron ore are included in code 2122 (metal ore mining).

We reviewed the request for comment and have gathered information from our member companies detailing the impact of existing federal regulatory requirements on their ability to operate, construct, expand or modify facilities in the U.S. The detailed comments below provide:

1. Background on the number and types of permits our members need to obtain to construct, operate and/or expand facilities in the U.S.;
2. Proposed changes to existing permitting regulations that would help streamline the process and reduce overall costs for companies; and

3. A broader list of regulations outside of the federal permitting structure that our members consider an added and unnecessary burden to domestic manufacturing.

1. Manufacturing Permitting Process

The construction, operation and expansion of a steel, coke and/or mining operation requires various permits under different existing federal statutes regulating air emissions, discharges to water and handling and processing of waste products. The total permits needed to construct and operate a facility will vary depending on the particular operation but could be as high as 12 or more permits for a single facility across various state and federal agencies. As will be outlined further in our comments, the high costs and timing uncertainties in the numerous permit application processes create significant impediments and often frustrate future planning of new or expanded facilities in the U.S.

Under the Clean Air Act (CAA) before a facility is constructed or expanded the company is required to go through the New Source Review (NSR)¹ permitting process that ensures that facility will employ up-to-date pollution control technology.

Facilities opening or expanding in an area of the country considered in attainment with current National Ambient Air Quality Standards (NAAQS) must obtain a pre-construction permit under the CAA's prevention of significant deterioration (PSD) provisions. The PSD permitting process requires a showing that the facility is using the best achievable control technology (BACT) to ensure projected emissions increases will not cause an area to exceed NAAQS for any of the listed criteria pollutants. The PSD process is generally applied for and issued through state environmental agencies with oversight and approval from U.S. EPA Regional offices. A PSD permit may be required for various processes or emission units at a single facility. AISI members report that the PSD permitting approval process can take from a little over a year to up to two years in some EPA Regions despite the CAA

¹ NSR permitting technically refers to permitting of facilities in CAA nonattainment areas, and PSD refers to permitting of facilities in CAA attainment areas. Generally, the term NSR is often used broadly to refer to the permitting program, including both NSR and PSD permitting. These terms are used throughout this document according to that standard approach.

requirement that completed permit applications be granted or denied not later than one year after the date of filing.²

In addition to PSD permitting, facilities must also obtain a CAA Title V Operating Permit through its relevant state agency. The Title V permit includes the pollution control requirements from federal or state regulations that apply to a source and is subject to reviews by U.S. EPA, state environmental agency, federal land managers and public comment and hearings. Similar to the PSD permitting process, AISI members report varied timelines for completing the Title V review and approval process depending on the state regulatory agency and EPA Regional office, taking up to three years to receive the final permit and costs of several millions of dollars for each operating permit needed. Title V permits also must be renewed every five years, during which time a facility needs to demonstrate compliance with the permit conditions by reporting its air emissions over the five year period.

The Clean Water Act (CWA) administered by both U.S. EPA and U.S. Army Corps of Engineers (Army Corps) contains various permitting requirements that most industrial facilities must meet. CWA Sections 401 and 404 deal with certification and permitting for constructing, operating or expanding an industrial facility where federal waters will be dredged or filled. Most Section 401 water quality certifications are handled by the states and can be used to condition or deny Section 404 permits issued by the Army Corps. The Section 401 certification and Section 404 permit process can take between a year to up to four years to complete. Discharges of either industrial process waters or storm waters into federal jurisdictional water requires National Pollutant Discharge Elimination System (NPDES) permits. These permits are issued by state environmental agencies with oversight from EPA Regional offices. Members report that NPDES permits can take six months or more to obtain depending on the state or region.

2. Proposed Changes to Streamline Existing Permitting Regulations

Once a facility is constructed and in operation, some of the most onerous permitting processes that facilities have to go through to continue to function as well as to seek any efficiency improvements or expansions are those relating to obtaining the NSR/PSD construction permits described above.³ The loss of productivity and

² 42 U.S.C. § 7475(c).

³ See also 40 C.F.R. Parts 51 and 52.

costly, time consuming permitting efforts associated with the current NSR process are without any real benefit to the environment and have the unintended consequence of actually discouraging installment of new efficiencies.

EPA should seek to streamline NSR permitting for modifications conducted at existing steel facilities to facilitate and stimulate productivity increases, innovation and efficiency in domestic steel manufacturing. This effort is necessary because the current NSR procedures have the unintended consequences of often forcing decreases in production. EPA proposed many of the reforms advocated in 2002, 2003, 2004 and 2005. Although some of these reforms were stayed as a result of court rulings, AISI believes that EPA can still implement the reforms through a careful review of the provisions and could yield beneficial NSR reforms.⁴ AISI stands ready to help EPA engage in this process.

a. Routine Maintenance Repair and Replacement Reforms

The NSR rules provide that certain physical and operational changes at a plant do not constitute “major modifications” and thus do not need to undergo the burdensome NSR process.⁵ One of the categories of exempt activities are those considered “Routine maintenance, repair and replacement” (RMRR).⁶ EPA applies the RMRR exclusion primarily on a case-by-case basis, using a multi-factor test for determining whether a particular change falls within or outside the exclusion. This case-by-case analysis involves several different time consuming, expensive and legally risky options a company must weigh to potentially qualify for the RMRR exemption: (i) in advance of a facility submitting a construction permit the company can request a formal applicability determination (which generally takes a minimum of three months); (ii) an RMRR argument for exemption can be made as part of the construction permitting process, which also can take many months; (iii) a facility can proceed “at risk” without prior regulatory approval and with potentially serious enforcement consequences; or (iv) a facility can forego installing state-of-the-art equipment or undertaking efficiency projects and continue operations with older, less efficient equipment.

⁴ See *New York v. EPA*, 443 F.3d 880 (D.C. Circuit 2006).

⁵ 40 C.F.R. § 51.165(a).

⁶ *Id.*

EPA previously recognized the need to reform the RMRR determination process due to inherent uncertainty, costs and legal risks imposed on domestic facilities, stating that the process:

“...results in lost capacity and lost opportunities to improve energy efficiency and reduce air pollution.”

And also requires permitting authorities:

“...to devote scarce resources to make complex determinations, including applicability determinations, and consult with other agencies to ensure that any determinations are consistent with determinations made for similar circumstances in other jurisdictions.”

EPA goes on to say of the currently-existing NSR process:

“...the effect is to discourage plant owners or operators from engaging in replacements that are important to restoring, maintaining and improving plant safety, reliability and efficiency...this effect is exacerbated by...the uncertainties inherent in the case-by case approach.”⁷

These same deficient permitting processes exist today and present the same challenges to domestic manufacturing that existed more than a decade ago. EPA should revisit certain portions of the RMRR reforms from 2003, specifically the provisions known as the “Equipment Replacement Provisions” (ERP). These provisions would exclude from the definition of “major modification” at 40 C.F.R. Section 51.165, projects that replace existing, permitted equipment or components thereof with like-kind or functionally equivalent equipment, provided the replacement components or equipment do not alter the basic design of the process unit and would not result in an exceedance of the permit limits.

Additionally, EPA could identify specific activities at steel facilities and other industrial sector operations that should be presumptively considered to constitute RMRR. Such a list could be added to the regulatory language or could be issued as clarifying guidance. As an initial example, the following list of modifications common to the steel industry could be considered presumptively as RMRR rather than be

⁷ 69 Fed Reg. 61250 (October 27, 2003).

subjected to the current costly case-by-case analysis: replacement of furnace shells, oxy-fuel burners, oxygen lances, tundish pre-heaters, tundish burners, transformers, capacitors, regulators, lime or carbon injection equipment and other equipment that is commonly and routinely replaced in the industry as part of normal, continual maintenance activities. AISI and its members welcome any opportunity to discuss these recommended changes to the RMRR process with the administration or answer any questions.

b. Exclude Pollution Control Projects from Modification Definition

Another potential regulatory change to the existing definition of “major modifications” triggering NSR permit requirements that could streamline the permitting process for existing manufacturing facilities is to exclude Pollution Control Projects (“PCPs”) that result in net overall reductions of air pollutants, involve upgraded or rebuilt pollution control equipment or devices, or allow raw material/fuel substitutions that do not result in exceedances of permit limits. Similar to the RMRR revisions described above, EPA explored excluding PCPs from NSR review in the past on the basis that the exclusion “allows sources to install emissions controls that are known to be environmentally beneficial...thus offer flexibility while improving air quality.”⁸ The prior EPA effort listed specific technologies that the agency believed should be presumptively considered PCPs, but further provided that PCPs not listed could nevertheless qualify for the exclusion if the permitting authority determined on a case-by-case basis if the non-listed PCP was environmentally beneficial, and provided that PCPs entitled to the exemption could include in addition to equipment and technology, work practices, process changes or other pollution prevention strategies. AISI again recommends EPA revisit the PCP exclusion and publish in either regulatory text or through guidance a list of technologies, work practices and/or strategies employed in the steel sector that would be presumptively considered PCPs and exempt from NSR review.

c. Match the NSR Definition of Major Modification with the NSPS

EPA should revise the NSR emissions test definition to match the NSPS definition. This change would provide greater opportunities for facilities to make efficiency improvements to their operations without the significant costs and permit approval delays that are currently associated with the NSR trigger. EPA proposed a

⁸ 67 Fed. Reg. 80190 (December 31, 2002).

similar change in definitions which, had it been finalized, would have applied only to electric generating units (EGUs).⁹

AISI believes that that statutory language behind the NSR program fully allows for this change, and the benefits of such a change would significantly aid streamlining the permitting process currently faced by our members' facilities.

d. Adopt Plant-Wide Applicability Determinations

EPA should promote and facilitate a voluntary option that a facility can establish Plant-Wide Applicability Limitations ("PALs") (basically emissions limits that apply facility-wide) through a permitting process, allowing such facility to change, modify and upgrade equipment and operations and add new equipment without triggering major modification NSR review, provided the changes do not result in exceeding the established PAL emissions limits.¹⁰ When EPA explored establishing PALs in the past, the agency stated "[w]e believe that the added flexibility provided under a PAL will facilitate your ability to respond rapidly to changing market conditions while enhancing the environmental protection afforded under the program."¹¹ AISI believes EPA's conclusion remains true today, however, these provisions were stayed in litigation. EPA could revisit this issue and work with industry to minimize the burdens of establishing PALs, so that steel plants and other domestic manufacturing facilities would be able to make needed changes to equipment and processes more quickly than under the existing burdensome NSR process. This would allow steelmaking facilities and other manufacturers to have flexibility to respond to market conditions and make the U.S. manufacturing industry more competitive in the global marketplace. With a PAL, steel facilities would, without increasing emissions above the levels already deemed acceptable by the permitting authority in the PAL permit, be able to invest in equipment and technologies without the risks and delays inherent in the existing NSR permit process.

e. Specific NSR Permit Issues

⁹ See 70 Fed. Reg. 61081 (October 20, 2005).

¹⁰ See 40 C.F.R. § 51.165(a)(1)(v).

¹¹ 67 Fed. Reg. 80189 (December 31, 2002)

There are a number of additional important NSR permit related matters that would benefit greatly from increased clarity and flexibility:

- EPA should reconsider policy reasons for co-located sources being considered the responsibility of the host company or facility. A co-located facility is on leased ground and has its own operating permit, employees, equipment and is responsible for maintaining compliance. EPA maintains the position that the “host” company has control and responsibility for any co-located company’s actions, which is not the case. Separately permitted entities should not be a part of permitting evaluations for each other.
- EPA should provide for better flexibility for emissions offsets from energy conservation and reuse projects. For instance, over-restrictive netting requirements force many limits on a new boiler because the rules do not allow for direct emission offsets without additional federally enforceable limits to be set, like a minimum blast furnace gas (BFG) limit or a boiler specific emission limit. While a natural gas limit would make sense for a new, efficient boiler, the other requirements do not when looking at the overall reduction in emissions.
- EPA policies that reversed in-project netting should be established to give needed flexibility for modifications so that a permittee does not have to pull in every source (including on-site contractors) for netting calculations.
- EPA should modify rules related to data collection to allow for more current techniques. Certain rules list prescribed means of data collection that are now archaic and not easily maintained as they are obsolete (*e.g.*, paper chart strip recorders). Likewise, rules related to equipment calibration should be modified. These rules are outdated in that they do not recognize the newer generations of electronic instruments that cannot be calibrated in a traditional sense and either work, fail or internally diagnose and alert user of required attention. Many units also self-calibrate. Facilities now create a “calibration” to satisfy the rule requirement but the work is just a paper trail with no real meaning or added value for instrument performance.
- EPA should address PSD projects by allowing the permittee to revisit and/or take on new or additional limits when transitioning from the source modification/construction permit to the operating permit before closing the PSD time-period if the project lasts more than some minimum time threshold (*e.g.*, 18 months or two years from the initial application to the facility start-up). Facilities should have the right to true-up or make

adjustments with the netting balances prior to operating the new equipment in case of previously unforeseen changes in scope, so long as the permittee does not change the significance determination of the project in the Technical Support Document (TSD).

f. Align Implementation Guidance with NAAQS Revisions

Under current EPA policy, when NAAQS are revised for any of the criteria pollutants, existing NSR permit applicants must often redo the required modeling analysis using the new standard. This is often difficult and costly for both the affected facility and the state permitting authority as EPA has increasingly revised NAAQS before providing the states with implementation or modeling guidance. This lag time between revised standards and the implementing guidance, which often spans many years, can cause states to delay PSD permit approvals for facilities until EPA provides the needed data. The simple fix is for EPA to ensure it has the necessary implementation and modeling guidance in place before it issues a revised standard or at the very least have guidance on track to be available before a revised standard comes into effect.

g. Grandfather Existing NSR Permits When Adopting New NAAQS

EPA should adopt regulations requiring that NSR permit applications be subject to the NAAQS standards that exist on the date the application is submitted to EPA. Manufacturing facilities that have triggered NSR review spend significant resources modeling emissions to demonstrate that the NAAQS will not be exceeded when BACT controls are employed. If any of the NAAQS are changed while the permit is being processed EPA often requires new modeling based on the new standard. A consistent approach that grandfathers existing applications in connection with any future NAAQS revisions would provide companies with certainty and ensure companies do not spend time and resources on NSR permitting only to have the goal posts moved at the last minute and find themselves back at square one. This approach could also help alleviate EPA resources from having to develop the detailed guidance states need to implement a revised standard in a rushed timeframe.

h. Single-Source Photochemical Grid Modeling

The recent final rule amending Appendix W requires that, in the absence of an analysis allowing a source to screen out of a requirement to conduct and report the

results of air quality modeling, applicants seeking PSD permits must model impacts of precursors to ozone and PM_{2.5} using a “chemical transport model” such as a photochemical grid model.¹² EPA does not, however, specify a preferred model for this purpose. Although the CAA requires applicants for PSD permits to model air quality, EPA has long recognized that “it was not technically sound to designate with particularity specific models to be used to assess the impacts of a single source of ozone” or PM_{2.5} and instead allowed a permit applicant, working with the permitting authority, to choose a “method” to conduct the required air quality analysis. EPA has evaluated whether it is feasible to designate a single model for ozone and PM_{2.5} for use by all major sources applying for a PSD permit and concluded that it could not make such designations. EPA should, therefore, have retained the existing requirements applicable to sources emitting precursors of ozone and PM_{2.5}. What EPA has done, however, is to effectively eliminate the exploring of other methods for analyzing the impact of a proposed source on air quality. EPA should return to its long-standing prior approach to air quality analysis to support PSD applications for sources that emit precursors to these pollutants. At a minimum, EPA should adopt a moratorium on single-source modeling of at least three years to further develop cost-effective models and screening techniques. EPA can reevaluate the state of technology at the close of that period to determine whether the moratorium should continue.

i. Use of Probabilistic Modeling

Tighter margins between background pollutant concentrations and increasingly-stringent NAAQS make it more and more difficult to demonstrate compliance using overly-conservative modeling assumptions. Current EPA guidance requires “deterministic” air quality models that use a facility’s maximum operating rate and maximum allowable emissions as opposed to realistic actual operating and emissions rates at a facility that are often well below the maximum allowables. This frequently results in modeling data substantially overstating the effects a new or modified facility will have on ambient air quality for the region. EPA should adopt more probabilistic approaches to modeling to address this conservatism, especially given ever stricter NAAQS approaching background levels that makes it difficult to attain permits for expansions, construction or efficiency improvements. Probabilistic modeling, for example, would be allowed to take into account the variability of both

¹² 82 Fed. Reg. 5182 (January 17, 2017) (to be codified at 40 C.F.R. Part 51, Appendix W 5.3.2(c)).

background air quality and emission rates for modeled sources. While numerous commenters suggested this approach to EPA during consideration of the final Appendix W rule, EPA declined to take such action. EPA is using such probabilistic modeling in other programs, so should be able to make it workable and reliable under NSR.

j. Air Emission Modeling Improvements Needed

EPA has recognized that problems exist with its preferred models, but designated fixes to those problems are considered “non-default BETA option.” Use of “BETA” fixes requires Model Clearinghouse approval, which substantially limits the utility of a fix. While fixes may require some period of technical assessment, prolonging non-default BETA designation of proven fixes does not foster the balance between the economy and environment called for by the CAA’s PSD provisions.

EPA should make improved modeling tools a higher priority, including through allocating more funding for model development. Furthermore, EPA should conduct rulemakings to update Appendix W more frequently. Before the recent revision released in late 2016, EPA had not revised Appendix W since 2005, even though EPA has revised NAAQS for nearly every criteria pollutant in that same period. At a minimum, EPA should review Appendix W when it reviews NAAQS. Conducting such revisions concurrently with identification of improvements to models would better achieve the PSD program’s explicit statutory purpose of ensuring economic development while protecting air resources. Key modeling improvements include:

- **Receptor exclusions** – strengthen EPA guidance to exclude receptor data from areas that the public does not have legal or physical access to;
- **PM fugitive emissions** – use of a pre-processing step to account for the overestimate of fugitive emissions; and
- **Source Characterization** – EPA should streamline the modeling protocol approval process. Case-specific refinements involving source characterization should not trigger a non-guideline modeling approach. Substantial objective evidence and alternative source characterization protocols have been submitted to EPA to support the use of intermediate steps (without changes to AERMOD) to improve the accuracy of air dispersion modeling demonstrations for unique, non-traditional air

emission sources (*e.g.*, fugitive emissions, sources with large fugitive heat releases, unique stack configurations, etc.). EPA should authorize the use of source characterization techniques such as LIFTOFF, AERMOIST, AERLIFT, urban characterization, pre-processing step for fugitive PM, etc. Furthermore these “source characterization” techniques should be considered for routine application without a need for a non-guideline model approval if adequate documentation of the effects is provided.

- **EPA’s AERMOD model is known to over-predict** and controls should not be required based on modeling and sources should not be responsible for the cost of adding new ambient air monitors. AISI submitted a study to EPA in 2011 that documents AERMOD’s over prediction of emissions by more than 10 times compared to monitored data. When modeling shows nonattainment, sources can add new monitors per the SO₂ Data Requirements Rule instead of relying on modeling. EPA or states, not industrial sources, have historically been responsible for the cost of new and existing monitors and this cost should not be shifted to facilities. Modeling results that show an overprediction compared to monitored data should be allowed to be adjusted or calibrated based on the monitored data, instead of having industry install expensive controls based on known inaccurate modeled results.

k. Base NSR BACT Reviews on Domestically Proven Technology

In addition to the specific NSR regulatory reforms identified above that provide clarification on when PSD permitting is required, AISI suggests other changes to EPA policy once the PSD review process is triggered. BACT controls and limits considered during the PSD analysis should be based only on existing proven technologies and limits clearly demonstrated as reducing emissions at facilities located in the U.S. The PSD BACT evaluation process, spelled out through EPA guidance, should not include unproven technologies employed in other countries that have not been demonstrated as commercially feasible or effective at controlling emission in the U.S. Requiring domestic facilities to conduct technology reviews and costly feasibility analyses of technologies utilized in countries that do not have the same rigorous air pollution control and permitting requirements, places unreasonable permitting demands and delays on the already lengthy U.S. permitting process.

For the same reasons as above, the control technologies or limits considered under PSD BACT should be required to have been previously performance tested at a domestic facility to show an environmental benefit from the existing control

technology. Facilities seeking construction permits should not be required to evaluate technologies that are not already proven in the U.S. to reduce emissions. Because the current PSD BACT processes are unduly burdensome and time consuming for permit applicants and the reviewing authority, these procedures should be changed to reduce the economic burdens and time delays associated with BACT technology review.

1. Discontinue Use of Permit Performance Tests in Enforcement Actions

EPA has a history of using its enforcement powers to mandate control technologies and emissions limits in consent decrees as injunctive relief or mitigation measures. This practice of case-by-case enforcement measures creates significant disparities in the treatment of manufacturing facilities across the nation. Most importantly the enforcement strategy forces a small subset of facilities to bear the burdens of evaluating control technologies that EPA should be promoting through notice-and-comment rulemaking, or the permitting process. The enforcement burden on the targeted facilities can be extremely expensive and disruptive and often forces production limits resulting in a significant economic disadvantage of a target mill or group of mills, compared to their competitors. It also creates an additional corresponding burden and stigma of legal defense and enforcement in the facilities public record that the surrounding community may not fully understand.

EPA should also not utilize results from a post-construction performance test in an enforcement case seeking penalties or injunctive relief, provided the EPA-approved and permitted BACT technology installed was submitted with good faith pre-operational estimates of emissions. It is unfair and unproductive for EPA to review and approve technology-forcing BACT controls in a construction permit, only to file an enforcement action against a facility when it has invested in and installed the BACT controls in the event the controls do not meet the emissions reductions the facility and EPA anticipated.

AISI suggests that rather than pursue an enforcement action for penalties in the event EPA-approved BACT controls do not meet expected reductions, EPA should pursue a policy of modifying the construction permit based on the results of the performance testing. For emissions limits to be established as part of a BACT process, EPA should adopt a "test-and-set" process that establishes limits post-construction, rather than establishing emissions limits in advance of a performance test.

m. Discontinue Use of Enforcement Actions to Amend NSPS

EPA could also adopt an enforcement policy to discontinue the current practice of requiring a steel or iron ore production facility through an enforcement action to demonstrate compliance with limits on fugitive emissions from a plant production area or control device when limits are not set forth in the New Source Performance Standard (NSPS) for that source. Unless EPA changes the NSPS standards to specifically include numeric limits on fugitive emissions, it should not use language in enforcement action consent decrees to set emissions limits that were not adopted in NSPS notice-and-comment rulemaking. Currently, the NSPS does not have specific particulate matter numerical fugitive emissions limits, but rather sets opacity limits to ensure fugitive emissions are properly controlled. EPA is currently involved in a series of enforcement actions against several steelmaking facilities in Region 5 and has stated publicly that it does not like the published NSPS standards, and thus, is using the enforcement process to require Region 5 facilities to measure fugitive emissions in a manner in lieu of, and far beyond the NSPS-established opacity standards. This selective enforcement, in a single EPA Region, creates significant disparity in the applicability of the NSPS across the country and harms the competitiveness of manufacturers operating in that Region.

Similarly, EPA should not use injunctive relief or mitigation as part of an enforcement action to require any steelmaking or iron ore processing facility to use a monitoring technology other than the EPA-approved Method 9 set forth in the NSPS, to evaluate compliance with the opacity standards. Again, EPA Region 5 is currently engaged in an enforcement strategy against steelmaking facilities in the Region seeking to have those facilities to install processes and technologies that are not set forth in the NSPS standards. This puts facilities in the Region at a legal and economic disadvantage to operations in other locations.

If EPA desires to change the NSPS requirements applicable to controls or fugitive particulate emissions from steelmaking facilities, it should amend the NSPS through public notice-and-comment rulemaking, rather than by selective enforcement which creates disparities in the industry and sidesteps the established rulemaking processes.

n. EPA Should Update the NSPS Opacity Standard

The opacity limit EPA utilizes under Subpart AAa, 40 C.F.R. Section 60.272a (a)(2) and (3), which mandates a 3 percent opacity limit for emissions from a control device as well as a 6 percent limit that applies to a steel plant's production area to which the control device is attached should be updated to 10 percent. The changes are appropriate because EPA concedes that both of these limits were somewhat arbitrary when established originally and because of the practical limitations of reading a 3 or 6 percent opacity using EPA-approved Method 9 methodology. The use of a continuous opacity monitor (COM) as allowed under 40 C.F.R. § 60.273a(c) also has a high margin of error in relation to the 3 and 6 percent limits, thus creating errors and misreading of opacity, without any environmental benefit. The standards setting organization ASTM, International has also identified COMs to be accurate only to the level of 10 percent opacity, making a 3 or 6 percent limit functionally impossible to accurately measure facility opacity for compliance purposes.¹³

o. Classification of Baghouse Dust as Hazardous Waste

Dust collected from the emission control devices employed during the primary production of steel in electric arc furnaces is listed as hazardous waste under the Resource Conservation and Recovery Act (RCRA)(K061) and requires use of a RCRA- permitted recycling facility to recover valuable commodities from the dust, such as zinc. AISI requests that K061 baghouse dust be delisted as a hazardous waste. The de-listing of K061 would allow for new, potentially significant opportunities for recycling and reuse of this waste stream without negative impacts on the environment. Baghouse dust would still be subject to being classified as a regulated waste if it is determined by analysis to have hazardous waste characteristics. While steel facilities currently manage their baghouse dust utilizing several RCRA-permitted recycling processes, AISI believes that if the waste was delisted, additional recycling markets would quickly develop for this large-volume waste stream. The development of additional uses for and recycling strategies for non-hazardous baghouse dust will potentially eliminate significant annual costs and management burdens (labeling, training, placarding, storage limits, transportation challenges) associated with listed waste, without environmental detriment.

¹³ See, ASTM D 6216-98, *Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications*, ASTM International, West Conshohocken, Pa., 1998.

p. U.S. Army Corps of Engineers Wetland Permitting

The Army Corps is responsible for administration of Section 404 of the CWA, which covers permitting associated with impact to wetlands under federal jurisdiction. The 404 permitting process is currently one of the most ill-defined processes for a regulated party to understand and thus to predict permit timelines. This absence of a schedule is counter to a regulatory structure that fosters a balance between environmental protection and economic development.

Specifically, the Army Corps' Section 404 process should be improved to include a publicly defined sequence of required steps and timelines to achieve each of them. As an example:

- The Section 106 consultation process obligates the Army Corps to consult federally recognized tribal entities during the permitting process. This has been a completely open-ended process where the Army Corps allows the consultation to occur indefinitely. The administration should impose three-month duration to allow consultation to occur, which is more than ample time for interested parties to understand and provide input on a potential wetland impact (most public comment processes default to a 30-60 day window).

Similar consultation processes are required with the U.S. Fish and Wildlife Service, the state Historical Preservation Offices and U.S. EPA. All of these processes can and should have defined windows of duration to build a sense of business certainty of how long it will take to get through a permitting process.

Elimination of the open-ended processes would also result in reduction of other collateral effects of the current permitting process, which industry has experienced taking two-to-six years to issue a new permit, and in one case, over seven years to simply amend an existing permit. Those collateral effects include things like repeated Endangered Species Act (ESA) reviews. Because the Army Corps process currently has no mandated or even target timelines, other processes required as part of the Section 404 permit, such as review for potential concerns with endangered species are never truly complete in the Army Corps eyes. When it takes the Army Corps anywhere from two-to-seven years to issue a permit, and species are added to the ESA list (*e.g.*, endangered, threatened), removed and sometimes re-

added to the ESA list, the Army Corps sees an obligation to go back to the drawing board and re-initiate the ESA analysis. Providing permitting structure and defining the process timeline for the consultation and permit processes improves permitting certainty, avoids delays and expending unnecessary resources and ultimately the prospects for economic.

3. Broader Regulatory Programs Impacting Domestic Manufacturing that are in Need of Reform

In response to EPA's request for broader existing or proposed regulatory programs that are outside the scope of facility permitting, AISI provides the following list of programs of most concern to its members. Where appropriate we provide potential alternatives but also stand ready to work with the appropriate EPA offices in crafting common sense, data-driven solutions. AISI also wishes to express its support for broader regulatory review and revision efforts the administration has already begun on matters of import to manufacturing in general, but also the domestic steel industry. These efforts include: EPA's recent decision to withdraw and reconsider or rewrite the 2015 final Waters of the U.S. rule; EPA's actions to place the litigation over the Clean Power Plan in abeyance and consider remand and review of the final regulations for new and existing EGUs; and EPA's actions to hold the litigation over the 2015 Ozone NAAQS in abeyance while the agency considers the appropriate actions in review of the final 70 ppb standard.

a. CERCLA Section 108b Financial Assurance Requirement for Hardrock Mining

On December 1, 2016, EPA proposed the first framework for financial assurance regulations under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 108b to address risks from hazardous substances.¹⁴ In the same notice, EPA applied that framework to the hardrock mining sector, proposing specific standards for financial assurance on the industry sector. EPA is under a court deadline to promulgate a final rule by December 1, 2017. EPA's proposal calls for classes of facilities to establish and maintain evidence of financial responsibility consistent with the degree and duration of risk associated with the production, transportation, treatment, storage or disposal

¹⁴ 82 Fed. Reg. 3388 (January 11, 2017); 40 C.F.R. Part 320.

of hazardous substances. This rulemaking is of significant interest across the mining sector and beyond, as it would very likely require significant financial resources to be moved out of operation and instead set aside for the potential future risk of hazardous contamination.

According to a notice that EPA issued in 2009 on this issue, hardrock mining is defined as the extraction, beneficiation or processing of metals (e.g., copper, gold, iron, lead, magnesium, molybdenum, silver, uranium and zinc) and nonmetallic, non-fuel minerals (e.g., asbestos, phosphate rock and sulfur). At that time, EPA decided to exclude 59 categories of mining from this definition, finding them to be low risk and thus not in need of financial assurance for CERCLA liability. Further, adequate state authority and regulations exist to cover any remediation costs associated with iron ore mining and preempt the need for redundant and oppressive federal financial assurance measures under CERCLA. AISI members in the iron ore mining sector have used EPA's own modeling to calculate the projected impact of this rule if it were to go final as proposed. The iron ore mining sector would likely incur over \$8 billion in financial assurance obligations, which far outweighs the minimal risk of this mining sector poses. AISI and its impacted member companies in the iron ore mining sector believe the risk factors EPA used to exclude the other mining categories apply similarly to iron ore mining, which should also receive an exclusion from EPA.

b. EPA Draft Method for Specific Conductivity Criteria

On December 23, EPA issued its *Draft Field-Based Methods for Developing Aquatic Life Criteria for Specific Conductivity* ("Conductivity Guidance") (81 Fed. Reg. 94,370) (December 23, 2016), which purports to provide approaches for developing science-based conductivity criteria for flowing waters that reflect ecoregional- or state-specific factors. Once final, states and authorized tribes located in any region of the country may use the methods to develop field-based conductivity criteria for flowing waters. In 2011, EPA issued a similar conductivity "benchmark" for the Appalachian region – it was a chronic value of 300 micro-Siemens per centimeter (uS/cm). That equates to a Total Dissolved Solids (TDS) value of 192 ppm, which is an extremely low number that would be difficult to attain. The new EPA draft guidance takes the approach used in the Appalachian guidance and extends it to the rest of the country. Also, while the Appalachian guidance included only a chronic value, the new draft national guidance also includes acute values. Since the new document is actually a methodology, to be used with region-specific data, it does not provide specific

numbers for each region of the country, but it does contain four examples of how the methodology would be applied. The resulting values pose significant concerns for both AISI's iron ore mining and steel making members and their operations. In addition to the flawed scientific issues in the draft methodology, there are significant practical issues as to how a facility could comply with the low levels resulting from the methodology. As the draft guidance rests on a flawed scientific basis and would impose enormous compliance costs, EPA should formally withdraw the draft guidance and inform Regional offices to not apply the methodology going forward until the scientific flaws of the methodology are addressed.

c. Hazardous Air Pollutant Standards for Major Sources

EPA is currently under court ordered deadlines to complete 33 Risk and Technology Reviews (RTRs) as mandated under CAA Section 112.¹⁵ The deadlines to complete all 33 are staggered over approximately the next three years starting with an initial six RTRs by December 31, 2018, another 20 by March 13, 2020 and the final seven by June 30, 2020.¹⁶ AISI and its impacted members have been engaged with EPA in reviewing the current Section 112 NESHAPs and have provided substantial amounts of emissions data and invested time and capital resources to ensure the final result of the review process accurately captures the industry's risk profile.

Throughout the process of reviewing the Integrated Iron and Steel NESHAP (40 C.F.R. Part 63, Subpart FFFFFF), EPA has insisted on collecting data and performing facility-wide risk review, including from non-category sources, *i.e.*, sources within the facility not regulated under Subpart FFFFFF. Many of these non-category sources, such as coke ovens and steel pickling lines, have their own NESHAP standards making the additional risk modeling duplicative at best. AISI has numerous concerns with this approach and has expressed them to EPA in past meetings. Specifically, the data used to estimate risks from non-categorical sources in any facility-wide risk assessment is not subject to the same quality assurance and verification rigors as the data from Subpart FFFFFF sources. For these reasons, AISI explained to EPA that the iron and steel industry has great concerns on the use of the

¹⁵ 42 U.S.C. §§ 7412(d)(6), (f)(2).

¹⁶ See *CA Communities Against Toxics v. EPA*, 1:15-cv-00512, U.S. Dist. Ct for DC Circ. (March 13, 2017) and *Blue Ridge Environmental Defense League v. EPA*, 1:16-cv-00364, U.S. Dist. Ct for DC Circ. (March 22, 2017)(setting final rule completion deadlines for Integrated Iron and Steel Sector, 40 C.F.R. Part 63, Subpart FFFFFF and Taconite Iron Ore Processing, 40 C.F.R. Part 63, Subpart RRRRRR amongst 31 other sector categories).

non-categorical data in assessing and aggregating the risks to develop a facility-wide risk, as such data are not necessarily representative of any actual risks from the sources in which the industry operates, especially since iron and steel facilities do not all share the same non- categorical sources. The emissions data AISI's members provided EPA pursuant to the initial Information Collection Request (ICR) prescribed specific sampling and analytical criteria as well as quality assurance requirements. Data from non- categorical sources is generally not subject to the same standards as the Subpart FFFFF data, is frequently outdated and could lead to misinformation. EPA has acknowledged the difference in the data quality in past meetings but still intends and is currently conducting risk modeling from the non-categorical sources. Given the concerns expressed above with the quality of the data, value and potential for misinterpretation of results and compounded with current EPA time and resource constraints given looming deadlines as outlined above, AISI again requests that non-categorical emissions and risk data be excluded from review.

The taconite mining industry is subject to the Taconite Iron Ore Processing NESHAP (40 C.F.R. Part 63, Subpart RRRRR). On March 22, 2017 the U.S. District Court for the District of Columbia issued an order setting a deadline for EPA to complete its NESHAP Risk and Technology Review (RTR) for taconite and twelve other NESHAP affected industries by December 31, 2018 or June 30, 2020, depending on EPA's category prioritization. Certain companies affected by the original Taconite NESHAP submitted a Petition to Delete (PTD) taconite as a source category regulated under Section 112 of the CAA in 2003 (along with supplemental information to EPA in 2006) because the HAP emissions associated with these facilities are low; do not represent an adverse impact on ambient air quality; and do not pose an unacceptable risk to human health or the environment as defined in Section 112 of the CAA. Therefore, as described in the PTD application, the taconite industry does not warrant regulation under the Section 112 NESHAP program. However, EPA has not completed its evaluation nor responded to the companies' PTD request. Prior to initiating the Taconite NESHAP RTR, EPA should review the information presented in the PTD request and determine that due to the industries' low risk, all or portions of the category should be deleted from the Taconite NESHAP RTR.

d. Clean Air Act Regulatory Changes

AISI requests the following additional changes be made to various CAA programs:

- Add or strengthen EPA's specific requirement to consider costs and cost effectiveness when establishing new NAAQS, Maximum Achievable Control Technology (MACT) floor regulation, as well as State Implementation Plans (SIPs) control requirements.
 - The CAA should be amended so that NAAQS are not required to be reviewed every five years, but extended to at least 10-15 years or consider that revisions to the NAAQS are of such significant that they should be required to be passed by Congress and not EPA.
 - EPA should repeal the NSPS at 40 C.F.R. Part 60, Subparts N, Na. They are redundant and less restrictive than 40 C.F.R. Part 63, Subpart FFFFF. Subparts N and Na also require the use of obsolete technology (strip recorder charts) for tracking compliance data and reporting purposes. FFFFF is more effective at protecting the environment and recognizes available technologies exist and leave the means for tracking compliance data open.
 - EPA should repeal its position (not found in law or regulation, only in guidance via an FAQ document) that non-EGUs must maintain Part 75 Continuous Emission Monitoring Systems (CEMS) monitoring even if the states are following EPA's lead and not including non-EGU's in the Cross State Air Pollution Rule (CSAPR) trading program. States can demonstrate that state-wide thresholds for NO_x are met through means other than Part 75 monitoring, such as the use of emissions factors. It is unreasonable, burdensome and costly to maintain and replace (as necessary) CEMS monitors that are not otherwise legally required on non-EGUs.
 - EPA should repeal the enforcement criteria in the Energy Star and other efficiency reward programs, which preclude a plant (or possibly even a corporation) from the program when one plant is in enforcement. Valid projects with environmental benefits should be considered because the enforcement is unrelated to the project. In addition, some enforcement actions take years to conclude, which makes plants ineligible for those same years.
- e. **NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters**

As noted above, many steel facilities have numerous major source emission units subject to CAA Section 112 NESHAP requirements, including industrial boiler

and process heaters (40 C.F.R. Part 63, Subpart DDDDD). The requirement to test/tune/test each burner of each applicable source is a burdensome exercise. At many steel making facilities there are multiple finishing lines with indirect heating furnaces that are comprised of hundreds of natural gas fired burners each below 5 MMBTU/hour. These units are considered cumulatively under the Boiler MACT and are therefore required to have annual tune-ups per 40 C.F.R. § 63.7515(d). The annual tune-ups require excessive line outages and man hours. The annual requirement for testing and tuning of the many small burners can range up to \$100,000 for a company with the time, equipment and proper skills to conduct the tuning. For natural gas sources with burner sizes less than a certain threshold, reducing the frequency of these tune-ups to every five years would significantly reduce the cost burden.

f. MACT "Once In, Always In" Policy

Facilities currently subject to CAA Section 112 NESHAP requirements should be afforded the opportunity to petition for removal of applicability if their potential to emit (PTE) has fallen below the major source thresholds in the CAA triggering requirements to employ MACT.¹⁷ For example, one member facility once had coal-fired boilers that put the facility over the major source HAP threshold for Subpart DDDDD. After the boilers were permanently shut down, the PTE immediately fell below those thresholds, however the facility remains an affected source under the 40 C.F.R. Part 63, Subpart SSSS Surface Coating of Metal Coil. The permanent shutdown of the boilers brought the facility PTE down to Area Source thresholds, which require different emission control standards, specifically Generally Achievable Control Technology (GACT) and not the applicable MACT standards, which are more costly and directed at larger sources of air emissions.

Similarly, manufacturing facilities with emergency back-up generators onsite often find themselves subject to 40 C.F.R. Part 63, Subpart ZZZZ engine rules. These rules are intended to capture industrial engines that are much larger sources of HAPs than engines infrequently running back-up generators that typically produce minimal emissions.

¹⁷ See 42 U.S.C. § 7412(a)(1)(defining "Major Source" as sources with the potential to emit 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants).

One member facility whose back-up generators are subject to the Subpart ZZZZ NESHAP requirements reports the following emissions in 2016:

PM₁₀: 0.0002832 tons per year (tpy)
SO₂: 0.0002639 tpy
NO_x: 0.0039906 tpy
CO: 0.0008599 tpy
VOC: 0.0003180 tpy
Total: 0.005716 tpy

Having to monitor, report and maintain records for such a minimal emission source is not cost efficient. For a facility with five back-up generator engines it generally costs \$500 (\$100 per engine) per year to monitor, report and do maintenance as EPA requires, which amounts to \$90,000 per ton of emissions to comply with the regulations. AISI members believe this type of cost is an unjustified burden on manufacturers given the actual emissions from these sources and limited times these engines are running.

g. Restore Start-up, Shutdown, and Malfunction (SSM) Protections

From the inception of the CAA, EPA promulgated regulations and approved SIPs that granted exemptions and affirmative defense provisions for emissions during SSM events. But through an overly broad and unsupportable interpretation of two recent court decisions,¹⁸ EPA abruptly changed course and began a systemic process of eliminating existing SSM exemptions and affirmative defense provisions from various CAA regulations and previously- approved SIPs. Congress never intended for the EPA to eliminate SSM emergency exemptions that have existed and been successfully implemented for over 30 years. These exemptions provide certainty and flexibility for companies to lawfully maintain their equipment and, most importantly, to protect the safety of their workers and the surrounding communities without violating air permits.

AISI urges EPA to re-establish these important SSM exemptions that were removed from CAA regulations following EPA's strained interpretations of the *Sierra Club* and *NRDC* decisions. The administration's recent action to delay the ongoing

¹⁸ *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008); *NRDC v. EPA*, 749 F.3d 1055 (D.C. Cir. 2014).

litigation over recalling 36 state SIPs based on SSM provisions in those plans is an important first step AISI applauds. We also support EPA's stated intention to review the legal rationale behind the decision to pull various SSM provisions from already approved SIPs.

h. Mandating Digital Camera Opacity Measurement Technique

EPA should not mandate industrial facilities to solely rely on the Digital Camera Opacity Technique (DCOT) for measuring opacity compliance as was done in the final Ferroalloys NESHAP and its reconsideration in January 2017. The existing Method 9 has been in place for many years and is a reliable methodology for measuring opacity at industrial facilities. The new DCOT technology has not been proven reliable or effective for measuring opacity from stack source emissions and should, therefore, not be extended to measure compliance for fugitive emissions from non-stack sources, such as the roof vents found at many of our members' facilities.

Additionally, the DCOT technology is currently provided by a single vendor. Given that DCOT, to our knowledge, is not currently being used by either of the two facilities in the U.S. that exist in the ferroalloys industry as the means of verifying compliance with a regulatory opacity standard, the price for using it as a compliance measure is unknown. If EPA retains DCOT as the sole-source required compliance method, then basic economics would say the price will surely rise. Given the long term historical use of Method 9 inside and outside the ferroalloys industry, it is widely available to the regulated community through a broad network of EPA-approved testing vendors. The large network of Method 9 vendors helps to maintain a price that is stable and not exorbitant.

EPA also made this change to a compliance measurement approach through the Ferroalloy rule that applies to only two facilities. However, Method 9's use for opacity standards has a much wider application than just for the ferroalloy industry. Therefore, if the agency wanted to make a change of this nature to such a central and widely used method, it should have more clearly done so as a wholesale change. This method change should have been formally proposed and received full public comment, with commenters aware of the full potential magnitude of this proposed change in compliance measurement. In seeking to establish DCOT for the ferroalloy industry, EPA did not follow its own guidance regarding broadly applicable test methods as spelled out in AISI's August 2016 comments on the reconsideration of the final Ferroalloy NESHAP. Given the concerns outlined here and in our formal

comments to Ferroalloy NESHAP reconsideration, AISI requests that EPA allow both DCOT and Method 9 as alternative opacity compliance measurement methods.

i. Formally Update EPA's Manganese Risk Level

EPA's long outdated inhalation reference concentration (RfC) for manganese and manganese compounds (Mn) that appears on the agency's Integrated Risk Information System (IRIS) website needs to be removed in accordance with EO 13777. Pending completion of a new IRIS review for Mn, AISI requests that EPA remove the Mn RfC from the IRIS website and replace it with a notation that refers to or incorporates the "minimal risk level" (MRL) developed by the U.S. Public Health Service's Agency for Toxic Substances and Disease Registry (ATSDR).

EPA developed the Mn RfC value in 1993, and it has not been revised or updated for more than two decades. Since that time, a substantial body of new scientific information has been developed concerning manganese toxicology. Several years ago when developing air toxics standards for the ferroalloys production sector, EPA recognized the outdated nature of the IRIS Mn RfC and the fact that it is no longer consistent with the latest and best available science. Accordingly, EPA ceased relying on the Mn RfC and opted instead to utilize the recently updated MRL developed by ATSDR. Further, in 2014, the EPA Office of Air Quality Planning and Standards revised its database of benchmark values for use in assessing risks from air emissions by replacing reference to the IRIS Mn RfC with the ATSDR MRL.

The agency's information quality (IQ) guidelines developed pursuant to the 2001 Information Quality Act impose a clear procedural and substantive obligation upon EPA to ensure the quality, objectivity, utility and integrity of all information disseminated by EPA. For the reasons outlined above, EPA's continued reliance upon the outdated Mn RfC on EPA's IRIS website does not meet those IQ obligations and it is therefore a prime target for elimination in accordance with the terms of EO 13777.

j. State Primacy in Regional Haze Program

In recent years, EPA has taken several actions that have dramatically increased the scope and reach of the visibility program by disapproving of SIPs to address regional haze and imposing Federal Implementation Plans ("FIPs") in their place. In doing so, EPA has unlawfully expanded the regional haze FIPs beyond the

limits imposed in the CAA and beyond the scope of EPA's own implementing regulations. These efforts, in turn, have dramatically increased the regulatory burden on stationary sources currently subject to regional haze requirements and thereby imposed economic burdens on domestic manufactures.

While AISI supports reasonable and cost effective measures to improve visibility in Class I areas, it is critical that EPA and the states do so in a simple, straightforward, and flexible manner that reduces regulatory burdens and minimizes costs. The visibility program differs from most CAA programs because it is focused exclusively on aesthetic rather than human health concerns. As a result, it is even more imperative that EPA provide an adequate justification for imposing costly regulatory requirements on states and regulated sources. In the past, EPA has failed to do so and instead has issued FIPs that imposed billions of dollars in costs to regulated sources in order to achieve visibility benefits that EPA concedes would be imperceptible to the naked eye.¹⁹

States, regulated entities, and the courts have all expressed concern over the legality of EPA's aggressive approach toward implementing the regional haze program. In fact, the Fifth Circuit recently issued a stay of EPA's federal implementation plan after concluding that petitioners had "a strong likelihood of showing that EPA exceeded its statutory authority by disapproving of Texas and Oklahoma's reasonable progress goals" and establishing costly federal reasonable progress goals to take their place. *See State of Texas v. EPA*, 5th Cir. Case No. 16-60118, Doc. No. 513595283. In addition, on June 14, 2013, the Eighth Circuit Court granted Petitioners (Cliffs Natural Resources, ArcelorMittal USA LLC, and the state of Michigan) a judicial stay of the Taconite Regional Haze FIP pending final decision on the merits.

AISI encourages EPA to continue to look for ways to streamline and improve the regional haze program so that it can be efficient and effective without adding unnecessary requirements and burdens on states whose current efforts have led to meeting program glide paths and ultimately long-term visibility goals without imposing uncertainty and unnecessary regulatory burdens on individual facilities.

k. Triggers for Supplemental Environmental Impact Statements (EIS)

¹⁹ Visibility changes of less than 1 deciview cannot be perceived by the naked eye. 77 Fed. Reg. at 30,250.

Triggers for Supplemental Environmental Impact Statements (EIS) – Environmental Impact Statements have grown into review studies of staggering depth and scope and for the iron ore mining industry present years of time and millions of dollars in investment in preparation prior to initiating the permitting process. The breadth and depth required of these reviews should result in an assessment that is robust enough to serve for much of the activity undertaken by a mining operation. However, the federal language prompting the supplementing of an EIS grants enormous deference to the Responsible Governmental Unit to determine when such a study should be reopened and supplemented, a process which adds time and dollars again prior to the permitting process. The administration should adopt regulations that limit the conditions for supplementing an EIS to those where the existing state or federal permitting programs are unable to acknowledge any adjustments in project scope or environmental conditions during their respective permitting processes.

1. NPDES Authority - Groundwater Conduit Theory

AISI requests clarification that the CWA does not govern discharges to groundwater even if there is a subsurface hydrologic connection between groundwater and surface water. The text and legislative history of the CWA indicate that it was never intended to regulate discharges to groundwater. EPA has never adopted any formal position interpreting the CWA to require an NPDES permit for the discharge of pollutants to groundwater that is hydrologically connected to surface water.

AISI requests that EPA, in its rewrite of the WOTUS rule or through administrative guidance clarify that the NPDES program does not regulate discharges to groundwater, even if the groundwater is hydrologically connected to surface water.

m. Inclusion of Manganese on Drinking Water Contaminant List

AISI opposes EPA's recent addition of manganese to the Drinking Water Contaminant Candidate List (CCL 4).²⁰ Inclusion on CCL 4 unnecessarily opens manganese up to development of a new drinking water standard as EPA is required

²⁰ See 81 Fed. Reg. 81099 (November 17, 2016).

to make a determination to regulate or not regulate at least five substances on the CCL every five years. As EPA openly acknowledges, manganese is an essential nutrient that is subject to strict homeostatic control in the human body. Large amounts of manganese are naturally present in many foods consumed as a part of a normal diet, so manganese in drinking water is unlikely to add materially to the normal daily ingestion of manganese from diet.

The science EPA identified in the CCL 4 listing concerning manganese and any potential risk it might pose as a constituent of drinking water does not support the addition of manganese to CCL 4. The purported link between the consumption of drinking water and development neurotoxicity is not sufficiently robust to warrant the development of drinking water standard for manganese. AISI, through its coalition the Manganese Interest Group (MiG) submitted substantial comments to EPA's CCL 4 docket in 2015 outlining the flaws in EPA's science justifying manganese's inclusion on the list and incorporates those comments by reference again here. Accordingly, AISI respectfully requests that manganese either be removed from the CCL list or EPA affirmatively determine a drinking water standard is not warranted.

n. Modification or Removal of Designated Uses/Water Quality Variances

The federal water quality regulations at 40 C.F.R. Section 131.10(g) provide that states may modify or remove designated uses, and sets out six factors that may be considered to support modification or removal of a designated use. Section 131.14 provides for site-specific water quality variances. Such variances must be supported with use attainability analyses and at least one of the six factors listed at Section 131.10(g). Such variances must provide that the highest attainable condition be achieved considering all feasible alternatives.

While Section 131.10(g)(6) provides for consideration of costs for changes in designated uses and water quality variances, the cost threshold is so high (substantial and widespread economic and social impact) that this factor can only be used in rare and unusual circumstances. The regulations do not allow for considering a balancing of costs and environmental benefits. There are circumstances where designated uses may be partially attained (*e.g.*, fish in attainment, macroinvertebrates not in attainment) and the investment and operating costs to attain full attainment are so high as to be unreasonable. The following addition to Section 131.10(g) is proposed to address this situation:

Section 131.10(g)(7). As determined by the Director, the costs to achieve full attainment of the designated use are wholly out of proportion to the environmental benefits that would be achieved from full attainment of the attainment use. The Director shall consider a site-specific use attainability analysis and the lowest cost to achieve the designated use for technically feasible alternatives.

o. Mass and Concentration Effluent Limits

Title 40 C.F.R. Section 122.45(f)(2) provides that NPDES permit effluent limits shall be in terms of mass (*e.g.*, lbs./day), and that permit writers may also establish effluent limits in terms of concentration. The categorical effluent limitations guidelines for many industrial categories are production-based, whereby a reasonable measure of actual production is used with the effluent limitations guidelines factors to calculate mass technology based effluent limits. The effluent limitations guidelines do not require attainment of any particular effluent flow or effluent concentration, so long as the mass technology based NPDES permit effluent limits are attained. When duplicative concentration effluent limits are established by permit writers without cause, the permittee is, in effect, placed in double jeopardy for effluent limit exceedances and the flexibility to use any combination of effluent flow and effluent concentration is removed.

To remedy this situation, the following modifications to 40 C.F.R. Section 125(f)(2) are proposed:

Section 122.45(f)(2). Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement for cause, and the permit shall require the permittee to comply with both limitations. The provisions of this section do not apply where production based effluent limitations guidelines and/or best professional judgment are used to determine the mass effluent limitations and the mass effluent limitations apply at an internal outfall or internal compliance monitoring point. In such cases, only the mass effluent limitation shall apply at the internal outfall or internal compliance monitoring point. Supplemental or additional concentration effluent limits may apply at the corresponding final outfall that discharges to a receiving water, as may be appropriate for water quality based effluent limits or other effluent limits derived by the permitting authority.

p. Other Water-Related Matters:

There are a number of other water-related actions that we would raise for specific comment:

- We have concerns regarding a number of issues with the recently released guidance on conducting fish consumption surveys.²¹ We believe that this guidance should be reconsidered, and fully endorse the Federal Water Quality Coalition comments that were submitted on the draft guidance and are in the docket for that action.
- EPA should modify the NPDES and pretreatment rules to require a permitting authority to act on a variance request within 120 days from the time of application, or the variance is deemed granted. Further, EPA should modify the NPDES permit regulations so that short-term concentrations are not an issue if overall the mass loading is reduced; otherwise, diluting the concentration results in more total pollution to the waterbody.
- EPA should mandate public reviews during the Total Maximum Daily Load (TMDL) development process. Often facility managers do not see what the documents supporting the TMDL look like until they are final. It is unreasonable to expect permittees to comment on a TMDL during a permit review process, which gives the permittee little time to analyze and respond to the TMDL.
- AISI has concerns with EPA's proposed NPDES Application and Program Updates proposed rule, issued in May 2016 and not yet finalized.²² We request that EPA issue a new proposal considering the significant comments received, especially regarding permit shields and permit reforms. We endorse the Federal Water Quality Coalition's comments submitted on this proposed rule, which are in the docket for this action.
- AISI also has concerns about certain aspects of the draft recommended aquatic life criteria for selenium and implementation guidance. We endorse the Federal Water Quality Coalition's comments submitted on this draft guidance, which are in the docket for this action.

q. TSCA Chemical Data Reporting

²¹ See, <https://www.epa.gov/fish-tech/guidance-conducting-fish-consumption-surveys>

²² See 81 Fed. Reg. 31343 (May 18, 2016).

Under the Toxic Substances Control Act (TSCA) regulation, the Chemical Data Reporting (CDR) regulations require exceptionally detailed monitoring, recording, and reporting of the chemical make-up of our members' steel and steel coatings, raw materials, downstream uses and downstream users, among other things.²³ Having to track all of the different industry sectors, customers and out processors that our steel touches is simply an inefficient use of valuable time without a concurrent benefit. It is overly burdensome to the steel industry to report on the general safety of a product that has been widely produced for several centuries and whose chemical makeup is well known and that poses little risk from exposure. AISI recommends exempting certain steel products from CDR reporting that are shown to pose little to zero risk from exposure. Our members report having to spend approximately 800 man-hours companywide to complete CDR reporting that would be better invested in addressing issues posing a higher risk potential.

r. TSCA Regulation of Asbestos

In December 2016, EPA announced that asbestos would be one of the first ten chemical substances to undergo a risk evaluation under the revised version of TSCA.²⁴ AISI supports regulations based on sound science that prevent harmful exposure to asbestos. Before EPA begins its asbestos risk evaluation, however, the agency must clearly define "asbestos" for the purposes of this risk evaluation and any subsequent risk management rulemaking. That definition must be sufficiently precise to differentiate asbestos from common, rock-forming elongated particles or cleavage fragments, which have not been found to cause health effects like those associated with asbestos. Providing a precise and accurate definition and analytical methods for asbestos will help to focus EPA's risk evaluation on harmful asbestos and asbestiform fibers, which present real risks to human health, and avoid diverting the agency's attention and resources away to non-asbestiform mineral particles that have not been shown to cause asbestos-related diseases.

In a presentation seeking public comment on the scope of risk evaluations, EPA stated it will adhere to the definition of asbestos set out in Title II of TSCA:

²³ 40 C.F.R. Part 711.

²⁴ 81 Fed. Reg. 91927 (December 19, 2016).

The term 'asbestos' means asbestiform varieties of-- (A) chrysotile (serpentine), (B) crocidolite (riebeckite), (C) amosite (cummingtonite-grunerite), (D) anthophyllite, (E) tremolite, or (F) actinolite. (TSCA § 202(3))

AISI supports the continued use of this longstanding definition, additionally, in line with EPA's request for comments, we request the following recommendations to further clarify the scope of the TSCA risk assessment of asbestos:

1. AISI requests EPA to explicitly state in its pending asbestos regulation that "The term 'asbestos' does not include cleavage fragments (sometimes used interchangeably with non-asbestiform elongate mineral particles)." This addition could be bolstered by including a definition of "cleavage fragments." One readily available definition is from Appendix B to OSHA's asbestos regulations (29 C.F.R. § 1910.1001), which excludes "cleavage fragments" defined as "mineral particles formed by comminution of minerals, especially those characterized by parallel sides and a moderate aspect ratio (usually less than 20:1)." Alternatively, EPA can define "asbestiform" to clearly exclude cleavage fragments. The National Stone, Sand and Gravel Association (NSSGA), for example, has proposed a workable definition of "asbestiform" as "the mineralogical habit or form of a mineral in which ultra-fine single crystal fibers (fibrils) occur in bundles that can be separated into increasingly finer fiber bundles that typically display curvature." AISI requests EPA to exclude mineral particles with aspect ratios less than 20:1 from the "asbestiform" definition.
2. AISI also requests EPA explicitly state in its pending asbestos regulation that the agency will continue to define "asbestos containing material" to include only "material which contains more than 1 percent asbestos by weight."

s. Modify the Hazardous Waste Generator Improvements Rule

AISI has concerns with the recently issued Hazardous Waste Generator (HWG) Improvement's rule. EPA's rule includes some common-sense updates that will bring greater efficiency and clarity to the HWG regulatory program. However, we are concerned by other aspects of the rule. We are especially concerned by the change to the criteria under which a generator of hazardous waste is deemed in

violation of the Resource Conservation and Recovery Act (RCRA) permitting program applicable only to facilities that treat, store or dispose of hazardous waste (TSDFs). Under the new rule, failure to meet any one of EPA's long list of 'conditions for exemption' could subject a generator to multiple violations and substantial penalties. Even a minor deviation in compliance would cause a generator to now be considered an illegal TSDF. We oppose this provision and request that the agency promptly change this provision through notice and comment rulemaking.

t. Duplicative Reporting Under Greenhouse Gas Reporting Program

Greenhouse gas (GHG) emissions are based on production and fuel usage data that are also reported in the annual Title V fee emissions reports.²⁵ Completing these reports adds approximately 350 man-hours companywide according to one AISI member with four domestic facilities, while many of AISI's members have upwards of 20 facilities in the U.S. The GHG Reporting Program requires either a mass balance approach or annual emissions testing to calculate emissions from basic oxygen furnaces and electric arc furnace (EAF) steelmaking operations. The mass balance approach is an impractical method for some facilities to use therefore, those members must annually tests their basic oxygen furnaces and EAFs. This testing costs approximately \$120,000 companywide each year to complete and is duplicative to similar reporting conducted annually as part of the Title V permitting requirements. AISI recommends that EPA streamline these duplicative reporting programs and use data the agency already collected from facilities for use in the GHG Reporting Program.

²⁵ 40 C.F.R. Part 70.

Conclusion

Thank you for your attention on the important matter of addressing unnecessary regulatory burdens facing domestic manufacturing. AISI and its members are committed to working with the Trump Administration and its executive leadership in implementing common sense regulations and policies that are based on sound science and data and consistent with the statutory missions of each agency.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Thomas J. Gibson". The signature is written in a cursive style with a horizontal line at the end.

Thomas J. Gibson
President and CEO

Message

From: Rachel Jones [RJones@nam.org]
Sent: 9/27/2017 10:35:53 PM
To: Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: Re: Meeting Notice

Wonderful. Thanks all!

Rachel Jones

Direct: Ex. 6
Cell: Ex. 6

On Sep 27, 2017, at 6:20 PM, Dominguez, Alexander <dominguez.alexander@epa.gov> wrote:

Hey Rachel – We are all set. Mandy will be there tomorrow.

From: Rachel Jones [<mailto:RJones@nam.org>]
Sent: Wednesday, September 27, 2017 5:33 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Cc: Kime, Robin <Kime.Robin@epa.gov>; Dominguez, Alexander <dominguez.alexander@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Meeting Notice

Will—I just spoke with Mandy and she said that she can step in tomorrow morning. So crisis averted!

Alex—Please let me know if you need additional details to those below. I'll be staffing an event this evening but will be available by cell.

Thanks!

Rachel Jones
National Association of Manufacturers
Director, Energy and Resources Policy
E-mail: rjones@nam.org
Direct: Ex. 6
Mobile: Ex. 6

<image001.png>

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]
Sent: Wednesday, September 27, 2017 5:10 PM

To: Rachel Jones <RJones@nam.org>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Notice

Rachel,

I am extremely sorry, but Samantha will not be able to make it tomorrow. Very last minute travel with the Administrator just came up today and we finalized her travel plans recently. Additionally, Brittany is also travelling for work tomorrow so she cannot go in her stead.

If you will still have her, I hope we can arrange for another meeting in the future. I have cc'd the Chief of Staff for the Office of Policy, Robin Kime, to help coordinate such a meeting. Again, I cannot apologize enough for the inconvenience caused by this turn of events.

Sincerely,

Will

From: Rachel Jones [<mailto:RJones@nam.org>]
Sent: Wednesday, September 27, 2017 5:02 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Notice

All good for in the morning?

Rachel Jones
Ex. 6

From: Lovell, Will (William) [<mailto:lovell.william@epa.gov>]
Sent: Friday, September 22, 2017 10:37 AM
To: Rachel Jones <RJones@nam.org>
Subject: RE: Meeting Notice

Thank you, Rachel!

From: Rachel Jones [<mailto:RJones@nam.org>]
Sent: Friday, September 22, 2017 10:34 AM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: Meeting Notice

I wanted to send you a copy. Please let me know if you guys need anything. Thanks!

Rachel Jones
Ex. 6

From: Ross Eisenberg, NAM [<mailto:Ross.E.Eisenberg@nam.org>]
Sent: Wednesday, September 20, 2017 11:36 AM
To: Rachel Jones <RJones@nam.org>
Subject: Meeting Notice - Energy Forum, September 28 at the NAM

Energy Forum

A Joint Project of ACC, AFPM, API, INGAA, NAM, and the U.S. Chamber

Dear Energy and Natural Resources Committee Members:

Our next Energy Forum will take place on September 28, 2017 and will feature Samantha Dravis, Associate Administrator for the Office of Policy at the U.S. Environmental Protection Agency.

Attendance is in-person only, and seating will be limited. If you would like to attend, please RSVP [here](#).

Thursday, September 28, 2017
10:00 am – 11:00 am
National Association of Manufacturers
733 10th Street, Suite 700
Washington, DC 20001

We will continue to hold these events every two weeks, rotating speakers among the federal agencies and relevant congressional committees of jurisdiction. We hope this will be a valuable way to obtain up-to-date information from the key players making policy in Washington. As a reminder: the meetings will be in-person attendance only, closed-press and off-the-record.

We look forward to seeing you on September 28th.

Thanks,
Ross

Ross Eisenberg
Vice President, Energy and Resources Policy
National Association of Manufacturers
Direct: Ex. 6
Mobile: Ex. 6
Email: reisenberg@nam.org

To no longer receive invites to NAM's Energy Forums, [click here](#).

Message

From: Rachel Jones [RJones@nam.org]
Sent: 7/18/2017 2:12:44 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: scheduling

Flag: Follow up

Any luck?

Rachel Jones

Ex. 6

Message

From: Rachel Jones [RJones@nam.org]
Sent: 7/17/2017 6:35:51 PM
To: Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]
Subject: scheduling July 27th

Will—

Can you give me a quick call when you have a moment?

Thanks!

Rachel Jones
National Association of Manufacturers
Director, Energy and Resources Policy
E-mail: rjones@nam.org
Direct: Ex. 6
Mobile:



Message

From: Lovell, Will (William) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B150BB6ADE640F68D744FADCB83A73E-LOVELL, WIL]
Sent: 4/27/2018 3:59:48 PM
To: Laura Berkey-Ames [lberkeyames@nam.org]; Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: RE: Meeting Request re: Environmental Justice

Laura,

Please see logistics below.

Best,
Will

Directions: Please use the William Jefferson Clinton North Entrance located on your right as you exit the Federal Triangle Metro Station. Please arrive 10 minutes prior to the meeting with photo ID to clear Security.

EPA Contact: For an escort from Security to the meeting call (202) 564-4332; for all other matters call Robin Kime (202)564-6587.

From: Laura Berkey-Ames [mailto:lberkeyames@nam.org]
Sent: Friday, April 27, 2018 11:41 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Sounds great. Thank you!

From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Friday, April 27, 2018 11:40 AM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Lovell, Will (William) <lovell.william@epa.gov>
Subject: Re: Meeting Request re: Environmental Justice

Hello,
Sure, let's plan on it. I'll ask Will here to send you logistics (thanks Will). See you then.

On Apr 26, 2018, at 4:36 PM, Laura Berkey-Ames <lberkeyames@nam.org> wrote:

Hi Robin,

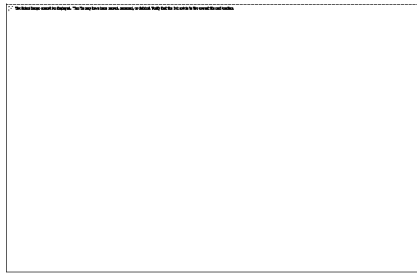
I would like to CONFIRM (yay!) that the group is good to meet on May 29 at 2 PM.

Please let me know if this works. I look forward to hearing from you.

Regards,
Laura

Laura Berkey-Ames

Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Thursday, April 26, 2018 3:55 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Subject: RE: Meeting Request re: Environmental Justice

Absolutely – we completely understand and that day won't fill up for a few days, you have some time to sort things out.

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 3:54 PM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Let me double check and I will be back in touch – thank you for your patience!!

From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Thursday, April 26, 2018 3:31 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi
Totally understood!
What works for you on May 29 from 10 – 3 (excluding 12-1 pls)?

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 3:21 PM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Robin,

You will have to forgive me. I am trying to coordinate this meeting to ensure that three key coalition members can attend and their schedule just changed slightly.

Any chance there would be an afternoon time slot available on May 10, 11, or 14 or 29? I apologize for making this so tricky.

If May 22 at 1 PM is our best bet, I will stick with that. Please let me know your thoughts as soon as you are able.

Laura

From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Thursday, April 26, 2018 9:50 AM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Thanks,
How about 5/22 at 10:00 or 10:30 or 1:00?

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 9:10 AM
To: Kime, Robin <Kime.Robin@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Robin,

With regards to May 15—I literally just got pulled into an in-house meeting that I must attend. Is there another time in the afternoon of the 18, 21, or 22 that she might be free?

Laura

From: Kime, Robin <Kime.Robin@epa.gov>
Sent: Thursday, April 26, 2018 9:00 AM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Laura,

Would May 15 at 1:30 or 2:30 or 3:00 work? We will email you confirmation and logistics and will appreciate it if you send us read-ahead material and the attendee list 3 days prior to the meeting. Much appreciated.

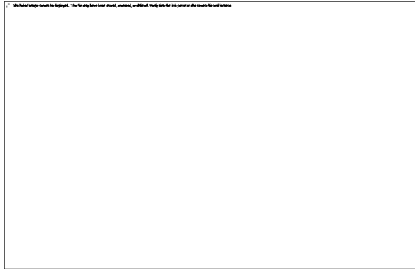
From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Thursday, April 26, 2018 8:49 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Brittany: Thank you for the quick response! I very much look forward to meeting with you in the near future.

Carolyn and Robin: Please let me know what time(s) Brittany would be available for the dates provided in the email below. However, if we could meet earlier in the month, that would be ideal. I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: lberkeyames@nam.org
Direct: Ex. 6



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From: Bolen, Brittany <bolen.brittany@epa.gov>
Sent: Wednesday, April 25, 2018 7:39 PM
To: Laura Berkey-Ames <lberkeyames@nam.org>
Cc: Inge, Carolyn <Inge.Carolyn@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Request re: Environmental Justice

Hi Laura,
Thanks for your email. I'd be happy to meet with your members on EJ issues. Please work with Carolyn Inge and Robin Kime (cc'd) on scheduling.
Brittany

From: Laura Berkey-Ames [<mailto:lberkeyames@nam.org>]
Sent: Tuesday, April 24, 2018 11:13 AM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: Meeting Request re: Environmental Justice
Importance: High

Hi Brittany:

This email is to request a brief meeting with you to discuss the NAM's involvement with environmental justice (EJ) issues. For years we have run the Business Network for Environmental Justice Coalition and I would love to have the opportunity to introduce members of the coalition to you, as well as discuss our EJ priorities prior to the first (teleconference) meeting of the National Environmental Justice Advisory Council which is scheduled to occur at the end of May.

The group's availability is fairly flexible next month, and the days we are available in May are as follows: 10 and 11, 14 and 15, 18, 21 and 22, 25, 29, 30 and 31.

I look forward to hearing from you!

Regards,
Laura

Laura Berkey-Ames
Director, Energy and Resources Policy
National Association of Manufacturers
Email: iberkeyames@nam.org
Direct: Ex. 6



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Message

From: Lovell, Will (William) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B150BB6ADE640F68D744FADCB83A73E-LOVELL, WIL]
Sent: 9/22/2017 2:37:29 PM
To: Rachel Jones [RJones@nam.org]
Subject: RE: Meeting Notice

Thank you, Rachel!

From: Rachel Jones [mailto:RJones@nam.org]
Sent: Friday, September 22, 2017 10:34 AM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: Meeting Notice

I wanted to send you a copy. Please let me know if you guys need anything. Thanks!

Rachel Jones

Ex. 6

From: Ross Eisenberg, NAM [mailto:Ross.E.Eisenberg@nam.org]
Sent: Wednesday, September 20, 2017 11:36 AM
To: Rachel Jones <RJones@nam.org>
Subject: Meeting Notice - Energy Forum, September 28 at the NAM

Energy Forum

A Joint Project of ACC, AFPM, API, INGAA, NAM, and the U.S. Chamber

Dear Energy and Natural Resources Committee Members:

Our next Energy Forum will take place on September 28, 2017 and will feature Samantha Dravis, Associate Administrator for the Office of Policy at the U.S. Environmental Protection Agency.

Attendance is in-person only, and seating will be limited. If you would like to attend, please RSVP [here](#).

Thursday, September 28, 2017
10:00 am – 11:00 am
National Association of Manufacturers
733 10th Street, Suite 700
Washington, DC 20001

We will continue to hold these events every two weeks, rotating speakers among the federal agencies and relevant congressional committees of jurisdiction. We hope this will be a valuable way to obtain up-to-date information from the key players making policy in Washington. As a reminder: the meetings will be in-person attendance only, closed-press and off-the-record.

We look forward to seeing you on September 28th.

Thanks,
Ross

Ross Eisenberg

Vice President, Energy and Resources Policy
National Association of Manufacturers

Direct: **Ex. 6**
Mobile:
Email: reisenberg@nam.org

To no longer receive invites to NAM's Energy Forums, [click here](#).

Message

From: Lovell, Will (William) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B150BB6ADE640F68D744FADCB83A73E-LOVELL, WIL]
Sent: 9/27/2017 9:34:34 PM
To: Rachel Jones [RJones@nam.org]
Subject: RE: Meeting Notice

Phew!

From: Rachel Jones [mailto:RJones@nam.org]
Sent: Wednesday, September 27, 2017 5:33 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Cc: Kime, Robin <Kime.Robin@epa.gov>; Dominguez, Alexander <dominguez.alexander@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Meeting Notice

Will—I just spoke with Mandy and she said that she can step in tomorrow morning. So crisis averted!

Alex—Please let me know if you need additional details to those below. I'll be staffing an event this evening but will be available by cell.

Thanks!

Rachel Jones
National Association of Manufacturers
Director, Energy and Resources Policy
E-mail: rjones@nam.org
Direct: Ex. 6
Mobile:



From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Wednesday, September 27, 2017 5:10 PM
To: Rachel Jones <RJones@nam.org>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: Meeting Notice

Rachel,

I am extremely sorry, but Samantha will not be able to make it tomorrow. Very last minute travel with the Administrator just came up today and we finalized her travel plans recently. Additionally, Brittany is also travelling for work tomorrow so she cannot go in her stead.

If you will still have her, I hope we can arrange for another meeting in the future. I have cc'd the Chief of Staff for the Office of Policy, Robin Kime, to help coordinate such a meeting. Again, I cannot apologize enough for the inconvenience caused by this turn of events.

Sincerely,

Will

From: Rachel Jones [mailto:RJones@nam.org]
Sent: Wednesday, September 27, 2017 5:02 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Subject: RE: Meeting Notice

All good for in the morning?

Rachel Jones

Ex. 6

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Thanks,
Ross

Ross Eisenberg
Vice President, Energy and Resources Policy
National Association of Manufacturers

Direct: **Ex. 6**
Mobile:
Email: reisenberg@nam.org

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Message

From: Lovell, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B150BB6ADE640F68D744FADCB83A73E-LOVELL, WIL]
Sent: 6/26/2017 5:01:11 PM
To: Reicherts, Elizabeth [elizabeth.reicherts@siemens.com]
Subject: RE: EPA Meeting w/Siemens

That does help. Thanks, Liz.

From: Reicherts, Elizabeth [mailto:elizabeth.reicherts@siemens.com]
Sent: Monday, June 26, 2017 12:47 PM
To: Lovell, William <lovell.william@epa.gov>
Subject: RE: EPA Meeting w/Siemens

Hi Will,

I have attached some documents that may help to further describe Siemens in the US. For the discussion itself we are hoping to achieve a few things:

- As these are Siemens Managing Board Members (including Lisa Davis who is both managing board, CEO Siemens Corp AND responsible for oil and gas globally – which she has headquartered in Houston) most of them are German with the exception of Lisa who is American – they are trying to get a true sense of EPA/the Administrator's priorities,
- how he is going to move those forward
- what that means in line with the overall Administration's priorities and
- ultimately how that fits within our business which includes a large energy business: oil and gas, power, LNG and renewables. Siemens' portfolio includes power plants and power-generating equipment, turbines for use as mechanical drives, compressors for industrial applications, power transmission and distribution systems, smart grid applications, and related instrumentation and control systems.

They are not coming with any specific request about the methane rule, etc. Hope this helps?

Best,
Liz

Liz Reicherts
Head of US Government Affairs
Siemens Corporation
300 New Jersey Avenue, NW, Suite 1000
Washington, DC 20001
Phone:
Cell:

From: Lovell, William [mailto:lovell.william@epa.gov]
Sent: Monday, June 26, 2017 11:14 AM
To: Reicherts, Elizabeth (GM GA US)
Subject: EPA Meeting w/Siemens

Liz,

I am gathering materials for your group's meeting with the EPA. Do you have any information for background that could help foster discussion? Any handouts, for example, would be greatly appreciated.

Thanks,

Will Lovell

Policy Assistant, Office of Policy

U.S. Environmental Protection Agency

(202) 564-5713

Lovell.William@epa.gov

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Message

From: Lovell, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B150BB6ADE640F68D744FADCB83A73E-LOVELL, WIL]
Sent: 6/26/2017 3:13:51 PM
To: elizabeth.reicherts@siemens.com
Subject: EPA Meeting w/Siemens

Liz,

I am gathering materials for your group's meeting with the EPA. Do you have any information for background that could help foster discussion? Any handouts, for example, would be greatly appreciated.

Thanks,

Will Lovell

Policy Assistant, Office of Policy
U.S. Environmental Protection Agency
(202) 564-5713
Lovell.William@epa.gov





Message



From: Lovell, Will (William) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B150BB6ADE640F68D744FADCB83A73E-LOVELL, WIL]
Sent: 8/23/2017 12:57:13 AM
To: Messner, Kevin [KMessner@AHAM.org]
CC: Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]
Subject: RE: EPA Meeting

Thank you, Kevin. That is all the information we need.

From: Messner, Kevin [mailto:KMessner@AHAM.org]
Sent: Tuesday, August 22, 2017 12:54 PM
To: Lovell, Will (William) <lovell.william@epa.gov>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: RE: EPA Meeting

It will be me and Charlotte Skidmore (AHAM's Sr. Director of Environmental Policy). We will be discussing the HFC court ruling (attached) and how it impacts the appliance industry. We represent manufacturers of refrigerators/freezers, room air conditioners, portable air conditioners, and dehumidifier, which all use refrigerants. EPA's SNAP program regulates the use of refrigerants and was the topic of the court ruling. Do you need more detail than that?

Kevin Messner
Senior Vice President, Policy & Government Relations
Association of Home Appliance Manufacturers
1512 Willow Lane, Davis, CA 95616
1111 19th Street NW, Suite 402, Washington, DC 20036
t:  Ex. 6  m:  Ex. 6  f 202.872.9354 e kmessner@aham.org

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From: Lovell, Will (William) [mailto:lovell.william@epa.gov]
Sent: Tuesday, August 22, 2017 7:58 AM
To: Messner, Kevin <KMessner@AHAM.org>
Cc: Kime, Robin <Kime.Robin@epa.gov>
Subject: EPA Meeting

Good morning, Kevin,

I am gathering information for your group's meeting on Thursday with EPA. Could you please provide a list of attendees and any topics they wish to discuss?

Thank you,

Will Lovell

Policy Assistant, Office of Policy
U.S. Environmental Protection Agency
(202) 564-5713
Lovell.William@epa.gov