To: Kime, Robin[Kime.Robin@epa.gov]
From: Hilary Moffett
Sent: Tue 5/16/2017 12:20:47 PM
Subject: Fwd: Comments on EPA's Reg Reform proposal
API EPA reg reform final comments 5-15-17.pdf
ATT00001.htm
API Attachment 1 - Comments on specific regulations 5-15-17.pdf
ATT00002.htm

Hi Robin,

These are the comments we submitted last night.

Thanks, and see you soon.

Hilary

Begin forwarded message:

From: "Howard Feldman" <Feldman@api.org>
To: "hec@listserve.api.org" <hec@listserve.api.org>
Subject: Comments on EPA's Reg Reform proposal

API Health and Environment Committee,

Attached are the comments submitted today to the EPA reg reform docket. Thank you all for your input! Obviously we tried to incorporate every company's input and comments to the extent possible, consistent with the HEC guidance on the issues and the comment package.

Next, your Washington representatives will be meeting with EPA and Hill staff regarding the identified issues.

Thanks again for your help.

Howard

Howard J. Feldman

Senior Director

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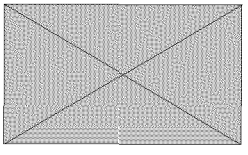

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Air

Rule	**Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources (NSPS OOOOa rule) (June 3, 2016; 81 Fed. Reg. 35824)**
Opportunity for Improvement	Final rulemaking directly regulates GHGs, in the form of a limitation of methane, as a pollutant. Under the Clean Air Act, the addition of GHGs as a regulated pollutant triggers the development of a regulation to address existing sources across the segments.
Suggested Improvement	EPA should revisit the final rule process the agency undertook that failed to demonstrate that the source category represents a "significant contribution" to endangering public health and welfare. EPA should also continue to work technical issues through administrative reconsideration process and provide immediate compliance date extensions to avoid costly implementation of rule requirement (e.g., leak monitoring and repair) while EPA revisits rule following publication of April 4th Federal Register (82 FR 16331).

Rule	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources (NSPS OOOOa rule) (June 3, 81 Fed. Reg. 35824) --- Alaska specific issues
Opportunity for Improvement	This rule would raise specific issues in Alaska: (1) The Leak Detection and Repair (LDAR) requirements of the OOOOa rule require periodic inspections with a prescribed technology (Optical Gas Imaging cameras and Method 21 detectors), but those instruments do not operate at temperatures less than-4°F per manufacturers' specifications, so compliance with the rule is not feasible when prevailing weather patterns involve long periods of temperatures below-4°F, such as on the Alaska North Slope. (2) The repair timelines do not adequately account for cold climates considerations. Some components used on the Alaskan North Slope are specially rated to-50°F to maintain integrity in the arctic climate. These specialty parts are not typically available for replacement within 30 days in the event of a leak, as the rule requires. Some parts may take up to 36 months to arrive for replacement because of the special climate rating. This delay due to parts unavailability would require shutdowns, and make the costs of the rule outweigh the benefit. (3) The State of Alaska already requires piping inspection for leaks monthly. When leaks are detected during these inspections, work orders are generated so they may be investigated and repaired. As similar work is already being done and regulated through a State agency, OOOOa is duplicative and does not achieve significant additional emission reduction in Alaska. The costs imposed by the LDAR requirements far outweigh the benefits of the rule. For more information on this topic, please see ConocoPhillips Alaska, Inc.'s OOOOa comment letter dated 12/4/2015 and API's OOOOa Petition for Reconsideration Letter dated 8/2/2016.
Suggested Improvement	The operations on the Alaskan North Slope should be categorically exempt from the LDAR requirements.

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Rule	Release of Final Control Technique Guidelines for the Oil and Natural Gas Industry (October 27, 81 Fed. Reg. 74798)
Opportunity for Improvement	Initiates requirements for states to incorporate controls for existing oil and gas sources within ozone implementation plans where non-attainment is moderate or above (or in OTR).
Suggested Improvement	EPA should revisit the stringency of the final CTGs and incorporate cost-effective VOC thresholds. EPA should provide clear flexibility to the states that any application of VOC controls within NOx-limited air sheds should be eliminated. Reducing VOC emissions in areas where the NOx-limited air sheds (where NOx emissions are the primary driver of low-level ozone formation) provides no additional environmental benefit.

Rule	Tribal Lands Federal Implementation Plan (FIP) (40 CFR 49)
Opportunity for Improvement	The FIP failed to accommodate synthetic minor sources, requires ESA/NHPA analyses, and is no longer useable for minor source permitting once an area is determined to be non-attainment
Suggested Improvement	EPA should modify the FIP to address all issues raised in API's petition including use of the FIP in ozone non-attainment areas and seek streamlined permitting for synthetic minor sources.

Rule	Emissions Standards for Small Remote Incinerators 40 CFR 60 Subpart CCCC and DDDD (effective February 2018)
Opportunity for Improvement	Small Remote Incinerator (SRI) emissions standards effective in February 2018 pose a serious concern for remote oil & gas operations in AK which do not have direct access to landfill disposal. EPA standards failed to account for waste stream variability and utilize a "pollutant by pollutant" approach to create a hypothetical incinerator. The rules do not consider net environmental benefits or conflicting regulatory requirements to quickly dispose of trash to minimize wildlife interactions in AK. Standards for newly built incinerators are not technically achievable.
Suggested Improvement	EPA should modify the requirements to allow units to meet operational performance standards (e.g., minimum combustion change temperatures, burn time, etc.).

Rule	**Accidental Release Prevention Regulations Under Clean Air Act (RMP)**
Opportunity for Improvement	EPA promulgated and issued an updated RMP final rule in January 2017 with little to no coordination with OSHA -- if RMP final rule remains as finalized, there will be significant differences between the RMP and PSM rules placing an increased regulatory compliance burden on regulated sites. RMP final rule has significant provisions that have not been shown will improve safety (inspecting all covered units, 3rd party audits, Safer Technology Alternatives & Analysis). EPA has not demonstrated that the benefits of the revised RMP final rule exceed costs.
Suggested Improvement	Initiate new rulemaking allowing the various provisions of concern to be readdressed.

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Rule	**Renewable Fuel Standard Program: Standards for 2017 and Biomass-Based Diesel Volume for 2018**
Opportunity for Improvement	EPA published the final rule December 12, 2016 with an effective date of February 10, 2017. Problematic provisions include: (1) Unrealistic assumptions were used in predicting 2017 volumes of cellulosic biofuel, E85, E15, and E0; and (2) Fuels mandates do not reflect current markets, creating potential for economic harm.
Suggested Improvement	(1) EPA should utilize its waiver authority in subsequent annual rulemakings to reduce the advanced, cellulosic, and total renewable fuel obligations to ensure the mandate does not exceed the E10 blend wall. In order to maintain a market for ethanol-free gasoline, EPA should not set a RFS mandate that would cause the average mandated ethanol content to exceed 9.7 percent of projected gasoline demand. (2) EPA should use realistic projections of E0, E15, E85 demand and cellulosic production when setting the annual RVOs. (3) EPA should work with Congress to reform and ultimately end this unworkable program.

Rule	Fuels Regulation Modernization – Streamlining (40 CFR Part 79 & Part 80)
Opportunity for Improvement	This action is the first of three phases intended to streamline and modernize EPA's fuels regulations. The purpose of this effort is to update EPA's existing gasoline and diesel regulations to reduce compliance costs for both EPA and industry, improve environmental benefits, and improve compliance assurance with EPA's fuels requirements. In this first phase, EPA will focus on streamlining and modernizing the existing fuels regulatory requirements and designing them in a way to match today's fuel marketplace, undertaking actions such as developing a single common set of provisions and definitions that will apply across all gasoline and diesel programs to reduce complexity, eliminate redundancy, and avoid duplication. Subsequent phases will look at removing variations in in-use fuel requirements and put in place provisions to ensure that health and welfare are protected as new fuels enter the marketplace.
Suggested Improvement	EPA should ensure that it reduces the burden of fuels regulations.

Rule	**Startup, Shutdown, Malfunction (SSM)**
Opportunity for Improvement	EPA began a systemic process of eliminating existing SSM exemptions and affirmative defense provisions from various Clean Air Act regulations and previously-approved SIPs. This potentially exposes every Title V-permitted manufacturing company, which must shut down and start up their equipment to conduct maintenance activities and other planned and unplanned outages, to citizen suits and potential civil penalties that can be costly and time consuming.
Suggested Improvement	EPA should reverse SSM SIP calls and defend previous SSM interpretations.

Rule	CAA Refinery Consent Decrees
Opportunity for Improvement	Most US refineries have agreed to settlement agreements under the Clean Air Act (aka. Consent Decrees), which were signed in the early 2000s. Many of these refineries have met all the requirements of their respective consent decrees, which should now be terminated. EPA has not allocated enough resources towards working with refineries to terminate their consent decrees.
Suggested Improvement	EPA should allocate more resources towards working with each refinery in order to terminate their respective consent decrees.

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Rule	**NAAQS Review: 2015 Ozone NAAQS**
Opportunity for Improvement	A more stringent Ozone NAAQS of 70 ppb was promulgated in 2015 without a sufficient science basis. EPA requested and the Court granted EPA's request to evaluate how the Agency wishes to proceed. EPA will need to report to the court on the status every 90 days. The current NAAQS could result in potential long term non-attainment and over-control of domestic sources attempting to overcome background ozone concentrations.
Suggested Improvement	EPA should reconsider the 2015 Ozone NAAQS in a timely fashion. If the EPA does not decide to reconsider 2015 NAAQS, EPA should take steps to expeditiously revoke the 2008 NAAQS.

Rule	**NAAQS Implementation (40 CFR Part 51)**
Opportunity for Improvement	Implementation rules and associated tools (e.g., robust modeling tools) are not sufficiently flexible and available to implement the NAAQS. Rules should be predictable and provide maximum flexibility to the states and impacted sources. Grandfathering, which is addressed in the NAAQS rule itself, does not provide sufficient transition periods when a NAAQS is revised. The current situation can cause uncertainty and costly delays to both states and businesses.
Suggested Improvement	EPA should incorporate the maximum flexibility within the implementation rules.

Rule	NAAQS Implementation (40 CFR Parts 50 and 58)
Opportunity for Improvement	The compliance monitoring network can be improved with updated guidance to more accurate and economical monitoring practices that will reduce monitor interference, inlet height, altitude, and dry calibration effects currently understating NAAQS compliance.
Suggested Improvement	EPA should mandate deployment of new "interference-free" O3 FRMs & FEMs at design value sites, adjustment of current inlet height data to 2 meter outdoor breathing heights above ground level, barometric data adjustment to reflect reduced inhaled gaseous O3 mass in altitude-adapted populations above sea level, and dry calibration/wet operation guidance revision to reduce FRM concentration of O3 and FEM baseline shift effects. Support states in finding the modest resources to substantially improve the monitoring network and thereby limit nonattainment areas to appropriate jurisdictions.

Rule	SIP Attainment/Maintenance Demonstration Modeling
Opportunity for Improvement	States may conduct brute-force modeling which masks the cost-ineffectiveness of control of a particular source type or category. Facilities may be forced to install costly controls that provide little or no improvement in air quality.
Suggested Improvement	EPA should modify implementation rules to require control sensitivity analyses when requested by potentially impacted stakeholders. Sensitivity analyses to be performed in advance of a formal SIP proposal as new implementation rules are proposed.

Rule	Treatment of Data Influenced by Exceptional Events (40 CFR 50 [50.14])
Opportunity for Improvement	The Exceptional Event Rule is too narrow and does not provide the relief from events outside the control of air pollution control agencies. Areas could be classified non-attainment due to NAAQS exceedances attributable to background sources.
Suggested Improvement	EPA should incorporate policies to include lightning, biological processes and international pollution transport for evaluation as an event.

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Rule	NAAQS Review: Standardize Implementation Schedules by finalizing all NAAQS as of 12/31 of the year of completion
Opportunity for Improvement	Implementation dates are driven by the finalization of the rules. Calendar years are used for monitoring data evaluation and ultimately when controls must be installed and attainment demonstrations performed. Conflicting schedules for different NAAQS at times result in a need to install controls more quickly than intended.
Suggested Improvement	EPA should prevent conflicting schedules from different NAAQS by making all NAAQS final as of 12/31 of the year promulgated. Establish a policy and include this final date in any schedule included in deadline consent decrees.

Rule	NAAQS Short Duration 2010 Standards
Opportunity for Improvement	The short-term standards for SO_2 and others, such as the current 1-hour standards, can cause permit delays due to sources conducting iterative modeling in order to demonstrate that a contemplated project does not "cause or contribute to the exceedance of a NAAQS." The short duration standards may not provide additional health protection over longer averaging time standards.
Suggested Improvement	When conducting NAAQS reviews, EPA should first consider longer term standards, such as an 8 and 24-hour standard, for contaminants for which a 1-hour standard provides no certain quantifiable additional health benefit.

Rule	Functioning and Role of the Clean Air Scientific Advisory Panel (CASAC) in the National Ambient Air Quality Standards (NAAQS) reviews (Section 109 of the Clean Air Act (CAA) enacted on August 7, 1977 (42 U.S.C. § 7409(d)(2)
Opportunity for Improvement	CASAC panels are not balanced; for example it can be difficult for industry representatives to be included on the committees. The full role of the CASAC as stipulated in the statutory language is not being fulfilled. This situation could result in NAAQS that are more stringent than required.
Suggested Improvement	EPA should select balanced panels. The SAB should ensure CASAC more closely follow the legislative role.

Rule	NAAQS Review: Process and Conclusions in Integrated Science Assessments (ISA) (statutorily known as the Criteria Document) (Section 109 of the Clean Air Act (CAA) enacted on August 7, 1977 (42 U.S.C. § 7409(d)(1)
Opportunity for Improvement	To inform a NAAQS review, EPA (ORD) must evaluate whether a given pollutant causes a given health effect and at what dose. EPA's weight of evidence methods for determining likelihood/strength of causal links lack clarity, consistency and transparency.
Suggested Improvement	EPA should use consistent criteria for selecting and evaluating studies and use an established weight of the evidence approach to integrate and interpret all available data. EPA should also engage broader scientific community to evaluate current best practices regarding causality and weight of evidence methods.

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Rule	NAAQS Review: Process and Conclusions in Risk and Exposure Assessment (REA)
Opportunity for Improvement	The REA process needs to provide more rigorous and scientifically sound risk assessments including error analysis. In addition to quantitative uncertainty analysis, EPA should quantitatively account for regulatory health dis-benefits (e.g., health dis-benefits of increased unemployment) should also be evaluated, for balancing against anticipated benefits of tightened NAAQS.
Suggested Improvement	EPA should ensure that the REA includes a more rigorous quantitative uncertainty analysis and presentation of a range of plausible risk values.

Rule	NAAQS Review: Policy Assessment (PA)
Opportunity for Improvement	This "staff paper" is reviewed by CASAC and this approach limits other stakeholder input at this pre-rulemaking stage.
Suggested Improvement	EPA should make the administrative change to issue the Policy Assessment as an Advanced Notice of Proposed Rulemaking to gather all stakeholder input on the conclusions of OAQPS

Rule	NAAQS Review: Regulatory Impact Analysis (RIA) (Executive Order 12291)
Opportunity for Improvement	While the NAAQS are not evaluated on their cost while being developed, a draft RIA is produced when the proposed rule is issued. EPA relies on co-benefits from other pollutants to justify a NAAQS (e.g. PM2.5 co-benefits to justify an ozone NAAQS). These inflated benefits are often used to justify more stringent NAAQS than are necessary. RIA's should also characterize the uncertainty in any estimates.
Suggested Improvement	EPA should conduct cost-benefit analyses that do not rely on co-benefits. Analysis should include a robust uncertainty analysis consistent with OMB guidance for developing regulatory impact analyses (RIAs), as required for economically significant rules by Executive Order 13563, Executive Order 12866, and OMB Circular A-4.

Rule	NSR Reforms
Opportunity for Improvement	There continues to be a need for NSR reforms that simplify and streamline permitting. Uncertainty and overly prescriptive permitting requirements can cause significant delays. EPA is restricting use of the actual-to-projected actual test by issuing policy that is inconsistent with the rule, which in turn discourages both companies and states from using these provisions and states to allow their use.
Suggested Improvement	EPA models and procedures need to be updated to improve efficiency and to remove over-conservatism. EPA should finish previous NSR rulemaking efforts to implement improvements in netting and project aggregation evaluations, and incorporate ways to simplify complicated analysis such as BACT/LAER and Routine Maintenance Repair and Replacement Rule (RMRR) exclusion. EPA should issue a policy on use of the actual-to-projected actual test that is consistent with the rule and its intent and clarify that use of the provisions is not a prior approval scheme in the context of minor NSR permitting.

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Rule	Significant Impact Level (SIL) used in PSD Permitting (40 CFR 51, 52)
Opportunity for Improvement	While Significant Impact Levels (SILs) are useful permitting tools, recent EPA guidance regarding SILs for ozone and PM2.5 recommends unnecessarily conservative levels. Unnecessarily conservative/low SILs result in more permit applicants having to conduct a resource intensive and time-consuming cumulative impact analysis.
Suggested Improvement	EPA should update its draft SIL guidance: Revise recommended SIL levels using EPA's previously used approximation of "4% of the NAAQS" or, if EPA sets SILs based on ambient monitor uncertainty, determine values using a 95% confidence interval, not a 50% confidence interval.

Rule	Definition of Ambient Air (NSR Policy and Guidance Database)
Opportunity for Improvement	EPA analysis assumes it is necessary to evaluate the air quality right outside of any facility boundary. This can be needlessly protective, for example in the case of evaluating modeled compliance with an air quality standard on a railroad right-of-way that bisects a manufacturing facility. There are other circumstances where the terrain or other factors make it highly improbable that people will be present. Additional controls and permit delays can result from this approach
Suggested Improvement	EPA should update the definition provided in the NSR Policy and Guidance Database to a reasonable definition that takes into account where people are not likely to be for any extended period of time.

Rule	**Petroleum Refinery Sector Risk and Technology Review Rule (December 1, 2015, 80 FR 75178)**
Opportunity for Improvement	Final rule published in December 2015 greatly expands control requirements at refinery flares, tanks, pressure-relief devices, and cokers. EPA has lagged in resolving outstanding API petition for reconsideration issues, including those that warrant regulatory language changes.
Suggested Improvement	EPA should reaffirm relevant features of the final rule without any increases in stringency. Accelerate pace of issue resolution, especially for issues for which compliance deadlines approach and for those requiring regulatory language changes. EPA should work to more fuly develop the record on important aspects of the rule, like the work practice for pressure relief devices and flares.

Rule	Equipment Leak Standards (40 CFR 60 & 63)
Opportunity for Improvement	EPA has been unwilling to replace Method 21 with optical gas imaging, camera-based monitoring for the detection of leaks of VOCs and HAPs from equipment such as valves, pumps, and compressors.
Suggested Improvement	EPA should initiate rulemaking process to modify all appropriate regulations (e.g., NSPS VV/VVa) to allow use of camera-based equipment leak detection for refineries.

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Rule	Once In, Always In Policy (40 CFR 63)
Opportunity for Improvement	EPA's policy (1995 Seitz memo) is that facilities that are major sources for HAPs on the first compliance date are required to comply permanently with the MACT standard (i.e. - "once in, always in.") This policy serves as a disincentive to older facilities that might otherwise contemplate additional controls or PTE limits to change permit status from major to area source.
Suggested Improvement	EPA should issue new guidance document that revokes this policy and allow sites to switch from major to area source status.

Rule	Work Practice Standards (40 CFR 60 & 63
Opportunity for Improvement	Increasingly high hurdle for EPA to establish work practice standards capable of addressing periods of malfunction, especially where alternative remedies are prohibitively costly with negligible environmental benefits.
Suggested Improvement	EPA should support work practices as appropriate policy. Evaluate possible statutory change. EPA should solidify as policy that, not only does the agency have authority to establish work practices, but that, in many instances; it's the preferable outcome to advance emission reductions while accommodating the technical limits of strict Clean Air Act rule-setting interpretations.

Rule	Reciprocating Internal Combustion Engine (RICE) NESHAP ZZZZ and NSPS JJJJ
Opportunity for Improvement	The excessive monitoring, reporting, and record keeping associated with these rules result in costs that outweigh the insignificant environmental benefits of regulated emissions from the affected engines.
Suggested Improvement	Revisit rules to identify opportunities for reducing burden associated with rule implementation and exempt portable engines, including emergency generators, from NSPS Subpart JJJJ and from NESHAP Subpart ZZZZ. The monitoring, reporting, and maintenance frequencies within these rules should be reduced. The rules should only be applicable to engine manufacturers based on model year with no recordkeeping requirements at the stationary source.

Rule	National Emission Standards for Hazardous Air Pollutants; Site Remediation (May 13, 2016, 81 Fed. Reg. 29821)
Opportunity for Improvement	This proposed rule unnecessarily imposes stringent regulatory requirements on remedial activities that EPA itself has admitted are already adequately controlled under CERCLA and RCRA. This proposed rule would remove the existing exemption from the NESHAP standards for site remediation activities performed under CERCLA or a RCRA corrective action.
Suggested Improvement	EPA should not finalize rule.

Rule	General CEMS and CPMS QA/QC Requirements under MACT and NSPS
Opportunity for Improvement	EPA has become overly prescriptive in specifying CEMS and CPMS QA/QC requirements under MACT and NSPS. These requirements are complex, confusing, and costly to comply with, and provide little to no additional environmental protection as compared to adhering to manufacturers specifications. EPA should refrain from more prescriptive requirements and simply specify that sites adhere to manufacturer's specifications for these analyzers.
Suggested Improvement	EPA should only require CEMS and CPMS analyzers to meet the QA/QC requirements specified by the manufacturer.

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Rule	Flare Requirements under NESHAP and NSPS
Opportunity for Improvement	EPA has recently promulgated new flare combustion efficiency and emergency flaring requirements in the Refinery Sector Rule (§63.670). In addition, EPA has also approved several Alternative Means of Limitation (AMEL) petitions for multi-point flares. To efficiently allow the utilization of these new standards and approaches in other industry sectors and for sites with multi-point flares, EPA should amend the MACT and NSPS General Provisions to allow others to utilize these new approaches.
Suggested Improvement	EPA should consolidate flare requirements by amending the MACT (§63.11) and NSPS (§60.18) General Provisions in a manner consistent with the Refinery Sector Rule and the approved AMELs.

Rule	Equipment Leak Standards (40 CFR 60 & 63) – Subparts KKK, OOOO, OOOOa, VV, VVa, HH
Opportunity for Improvement	The Leak Detection and Repair regulations are a complex web of regulatory requirements for the monitoring of leaks at natural gas plants. Although well-intended, the current enforcement initiative of LDAR where EPA obtains individual company databases containing thousands upon thousands of monitoring data points and runs diagnostics on the databases to look for data inconsistency, record mishaps, or missing data has resulted in an intense investment of resources and enforcement actions.
Suggested Improvement	The LDAR regulations found at Subpart KKK, Quad O, Quad Oa, VV, VVa all should be reviewed and revised to require the on-going conduction of leak monitoring and repairs but to provide more flexibility in repair schedules, monitoring corrections. The focus should be on a well-run monitoring and repair program, and permit upon discovery of minor recordkeeping or monitoring failures, the ability to make corrections and adjustment to the LDAR programs without having violated the regulations. Adding regulatory clarity to this program objective would save the government and industry thousands of man-hours spent on evaluating minor recordkeeping concerns.

Rule	Recordkeeping and Reporting (40 CFR 60, 61 and 63)
Opportunity for Improvement	Several rules under NSPS and NESHAPS require either quarterly or semi-annual reports for various requirements. These reports are time consuming and do not provide any environmental benefit.
Suggested Improvement	Any periodic report should only occur on an annual basis or at the very least, should only be required no more than semi-annually. It is also suggested that the periodic report due dates be staggered throughout the year instead of at the mid or end of year timeframe.

Rule	Performance Test (40 CFR 60, 61 and 63)
Opportunity for Improvement	Some federal air regulations (e.g., NSPS Subpart Ja) require annual certifications (Relative Accuracy Testing Assessment or RATA) on the continuous emission monitoring devices. The rule also requires quarterly cylinder gas audits (CGAs), which are also a form of analyzer system certification. These annual RATAs are costly and are unnecessary, especially since you are performing a quarterly system assessment. Furthermore, some rules only require CGAs to be done after the initial RATA has been conducted for items required to have CEMS. A re-RATA is required under these regulations only in the event if there is a significant change in the system (e.g. change analyzer system, probe locations, etc.).
Suggested Improvement	CGAs should be adequate to ensure that the monitoring systems are operating correctly without the increased costs of the annual RATAs.

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Rule	Greenhouse Gas Reporting Program (GHGRP) for these Subparts: Subpart A (General Provisions), Subpart C (Stationary Combustion), Subpart P (Hydrogen Production), Subpart Y (Petroleum Refineries), Subpart MM (Suppliers of Petroleum Products), Subpart NN (Suppliers of Natural Gas and Natural Gas Liquids), Subpart PP (Suppliers of Carbon Dioxide), Subpart RR (Geologic Sequestration of Carbon Dioxide) Subpart W (Petroleum & Natural Gas Systems)
Opportunity for Improvement	For each Subpart, API provided unique technical and operational input pertinent to the specific Subpart, to achieve a balance between the burden of data collection and reporting, the need to protect sensitive information and ensure that reporting requirements are placed on the correct reporters, while providing the highest quality data. In past comments, API noted that EPA has other avenues to acquire the needed information- such as commercial data systems DI-Desktop or the EIA's information for onshore production, or the monthly reports to the Bureau of Ocean Energy Management (BOEM) at the well level, for offshore production.
Suggested Improvement	1) Petition to Reconsider has already been filed for some Subparts. 2) In the past, API requested that EPA and OMB implement a GHGRP that would provide for less frequent reporting, such as every 2-3 years. This would be based upon an analysis of the burden of ongoing annual reporting and upon the lack of material change in annual emissions in many sectors that are pertinent to the petroleum and natural gas industry. 3) EPA should focus on the most significant emission sources instead of focusing on overly-frequent reporting of minor sources. To further streamline the GHGRP it is suggested that the use of company records such as historical samples and engineering calculations should be allowed to avoid expensive and unnecessary calibration and sampling activities. Also GHG reporting should be confined to estimated GHG emissions as opposed to inputs such as feed or product volumes. 4) EPA should organize its efforts such that the GHGRP reported data (which pertains to major emitters in 42 industrial sectors nationwide) is used to inform the development of EPA's National Greenhouse Gas Inventory, both for activity data and emission factor data. Better alignment of the GHGRP with the national GHG Inventory ensures better utilization of resources and personnel for both industry and the EPA

Rule	Greenhouse Gas Reporting Program (GHGRP): Leak Detection Methodology Revisions for Petroleum and Natural Gas Systems (Subpart W)
Opportunity for Improvement	Finalized three new reporting requirements and added two new monitoring methods for detecting leaks from oil and gas equipment for facilities conducting equipment leak surveys in all of the segments subject to reporting under Subpart W. EPA needs to preserve consistency of measurements and emission estimation methodology among sites, basins and nationwide as well as with NSPS Subpart OOOOa.
Suggested Improvement	Petition to Reconsider has been filed on 1/27/2017. This rule is tied to the outcome of NSPS OOOOa.

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Rule	EPA Greenhouse Gas Reporting Program
Opportunity for Improvement	Currently, pneumatic devices, including pneumatic controllers, account for over 30 percent of methane emissions in the oil and gas sector in part due to overstated emission rates for pneumatic controller emission factors. These overstated emission factors make pneumatic controllers the largest oil and gas source category of methane emissions and cause the EPA to overstate overall oil and gas sector methane emissions. New research and emission measurement demonstrate that emission factors for intermittent pneumatic devices are much lower than reflected in EPA's current GHG reporting program.
Suggested Improvement	Continue work on EPA Greenhouse Gas reporting program to update estimated emission factors for intermittent pneumatic devices to align with the latest research, such as Allen et al, *Methane Emissions from Process Equipment at Natural Gas Production Sites in the United States: Pneumatic Controllers* (2014) and Thoma et al, *EPA's Assessment of Uinta Basin Oil and Natural Gas Well Pad Pneumatic Controller Emissions* (2017).

Rule	Revisions to the Prevention of Significant Deterioration (PSD) and Title V Greenhouse Gas (GHG) Permitting Regulations and Establishment of a Significant Emission Rate (SER) for GHG Emissions Under the PSD Program
Opportunity for Improvement	EPA's legal authority to establish such *de minimis* SER thresholds under the Clean Air Act is well-established when the administrative and economic burdens associated with permitting are not justified by the trivial emissions reductions from sources that emit below the *de minimis* threshold. Thus, there is no legal barrier to establishing an appropriate SER for GHG emissions.
Suggested Improvement	Carbon capture and storage ("CCS") should not be the basis for setting the SER a commercially viable emission control for stationary sources and should not be used to establish a *de minimis* threshold. EPA should consider comments submitted on the proposed SER rule and establish a *de minimis* thresholds significantly above 75,000 tpy. The proposed rule does not fully correct the PSD rule language in order to implement the UARG Supreme Court decision. EPA should consider comments on rule changes needed to fully implement UARG, such as to ensure that BACT for GHGs would not be required if a source only triggers non-attainment NSR but had a significant increase in GHGs.

Rule	Electronic Reporting (40 CFR 60 & 63)
Opportunity for Improvement	Rules require facilities to electronically report performance test and performance evaluation data. However, EPA's existing electronic infrastructure is limited, unreliable, and not currently capable of receiving all of the information that facilities are required to report. EPA should drop the electronic reporting requirement until the system is reliable and capable of receiving all of the required information.
Suggested Improvement	EPA should clarify, within the rules, that facilities are not required to provide electronic reports until the system is reliable and capable of receiving all of the required information.

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Water

Rule	**Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054, (June 29, 2015).**
Opportunity for Improvement	We support the review and ultimate revocation of this rule, as well as EPA's current effort to better define waters of the U.S. in a way that will protect waters, promote the goals of federalism, and provide certainty for businesses. Problems with the final 2015 Waters of the U.S. Rule include: 1) the Rule is vague in describing features that are purportedly waters of the U.S. (e.g., "tributary," "adjacent waters," and "significant nexus"), leaving uncertainty which makes informed decisions impossible without case-by-case determinations; 2) the Rule is overly broad, including many land and water features not within the scope of reasonable interpretation under the Clean Water Act (CWA) and exceeding the Agencies' Authority under the Commerce Clause; 3) the Rule relied upon EPA's Connectivity Report, which was still under review by EPA's Science Advisory Board during the entire comment period for the Rule and after the comment period closed. EPA made meaningful changes to the Connectivity Report , depriving the public of an opportunity to comment on or view the final scientific conclusions in the Connectivity Report during the comment period for the Rule and refusing to extend the comment period to allow for public comment on this critical aspect of the Rule; 4) EPA used federal funds to engage in a substantial advocacy campaign for the Proposed Rule to influence Members of Congress, state government officials, and the general public through aggressive social media tactics that generated superficial support for the Rule through Twitter and Thunderclap, soliciting non-specific statements on clean water and treating these "comments" as support for the Proposed Rule; 5) EPA made substantial changes to the Rule between publication of the Proposed Rule and promulgation of the Final Rule without inviting additional comments from the public; and 6) EPA conducted a flawed cost-benefit analysis that dramatically underestimated and omitted certain key costs from the Rule and overestimated certain benefits of the Rule.
Suggested Improvement	Subject to review under Executive Order 13778, Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the "Waters of the United States" Rule. Seek revocation, receive clear interim guidance, and replacement with a final rule providing more certainty for all stakeholders.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	Effluent Limitations Guidelines and Standards for the Oil and Gas Extraction Point Source Category, 81 Fed. Reg. 124, 41845 (June 28, 2016) – published December 7, 2016.
Opportunity for Improvement	US EPA announced that it will develop standards for produced water from oil and natural gas operations discharged to POTWs – they set a "zero discharge" limit. This rule banned publicly owned treatment works from accepting waters from unconventional oil and natural gas development, relying only on circular logic and regional data. Repealing it would encourage businesses to advance water treatment technologies and infrastructure. Publicly owned treatment works (POTW) permit conditions can still and fulfill the environmental goal of allowing qualifying waters to be discharged at the only after appropriate permits with strict pretreatment discharge standards have been met. From a business perspective, repealing this rule would encourage the development of and adaptation of advanced water treatment technologies (both on-site and within POTWs). The rule was problematic in several ways: 1) It offered no environmental benefits and created possible environmental consequences (POTWs are already prohibited from accepting waters outside their permitted discharge limitations but this could cause environmental harm by permanently removing one of the few discharge options by which industry can return water to the hydrologic cycle and deprive POTWs of the economic benefits of accepting discharge related flows within their permit limits merely because of the origin of the water); 2) relied on a definition of unconventional previously used at the federal level only for statistical purposes which conflicts with state definitions (causing unintended consequences); 3) was based on a limited and largely regional data set (ironically from one of the regions where the rule conflicts with the applicable state definitions); 4) relied upon insufficient analysis and procedure (with EPA failing to conduct the statutorily required analysis to support their circular logic); and 5) lacked internal coordination within EPA (EPA handled the issue separately from the larger ongoing study on the use of centralized waste treatment facilities, contrary to the holistic approach recommended in the hydraulic fracturing drinking water study). Discharge of produced water from an off-site treatment plant is allowed under the CWA provided the treated water meets applicable water quality standards, and some states have permitted this activity. US EPA has a study underway to evaluate the O&G industry's use of CWTs. US EPA has stated: "While EPA is conducting a study of CWT facilities that accept oil and gas wastewater to determine if revision to the CWT regulations may be appropriate, EPA is not evaluating any approaches that would directly restrict their ability to accept such wastewaters." Overall, EPA has not followed the required processes to create standards and there is a concern that since certain regulations have been finalized, they will not "backslide" or make the regulation "less stringent."
Suggested Improvement	Candidate for replacement with appropriate pretreatment standards. Should only be repealed if replaced with appropriate pretreatment standards Ideas for Revisions: Clarify in the 40 CFR 435 regulations that any type of wastewater is allowed to be sent to POTWs, so long as it can meet the required pretreatment standards developed in a scientific manner. A zero discharge limit is not practical nor justifiable under the Clean Water Act. Also clarify in the CWA that water may be sent to a CWT for treatment and discharge at the surface, so long as the standards for a receiving navigable water are met.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	2010 Congressionally-directed Study on the Relationship Between Hydraulic Fracturing and Drinking Water.
Opportunity for Improvement	A draft Assessment report was released on June 4, 2015 with the key finding, *"the Assessment shows hydraulic fracturing activities have not led to widespread, systemic impacts to drinking water resources."* The SAB Panel provided its recommendation report to the Administrator on August 10, 2016 and a Final assessment was released on December 13 with a revised final conclusion that hydraulic fracturing activities can impact drinking water resources and EPA identifies factors that influence these impacts.
Suggested Improvement	Recognition that extensive scientific data does exist to support EPA's original topline conclusion and that no additional scientific work was undertaken by the Agency, following the SAB peer review, leading to the final revised conclusion.

Rule	CWA: 40 CFR Part 435, No Discharge "East of the 98th Meridian"
Opportunity for Improvement	The US EPA Oil and Gas Onshore Extraction Point Source Category rule (40 CFR Part 435, Subpart C) regulates the discharge of produced water from oil and gas operations. This regulation prohibits point source discharge of wastewater pollutants into navigable waters from any source associated with production, field exploration, drilling, well completion, or well treatment (i.e., produced water, drilling muds, drill cuttings, and produced sand) east of the 98th meridian. West of the 98th meridian operators can discharge produced water to the navigable waters for beneficial use for agriculture and wildlife propagation (40 CFR Part 435, Subpart E) as long as waste pollutants are removed to acceptable limits for the receiving waters For the most part, operators use different technologies to comply with this "no-discharge" regulation, including underground injection and use of pits or ponds for evaporation. Where direct discharge of wastewater is an option for disposal of wastewater, the owner/operator must obtain an NPDES permit from EPA or a delegated state. There are two problems with this division. First, the choice of the 98th meridian as a divider is inexplicable. Additionally, produced water should be treated like other types of potential discharges – eligible for discharge when permissible under strict permits with limits set based on water quality, economics, and technology.
Suggested Improvement	Clarify in in 40 CFR Part 435 that the discharge of produced water is allowed so long as it can meet the required NPDES standards, protective of navigable receiving waters.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	40 CFR 60 Subparts CCCC and DDDD and proposed 40 CFR 62 Subpart III, Federal Plan Requirements for CISWI units in Alaska
Opportunity for Improvement	Small remote incinerators (SRIs) in Alaska cannot reliably achieve the emission limits in the 40 CFR 60 Subparts CCCC (emission limits for new units) and DDDD (emission limits for existing units) yet must c omply with them either upon installation of a new unit or by February 2018 for existing units. As such, the SRI units in Alaska are, in the worst case, in danger of having to be shut down. In the best case, add-on controls or waste segregation measures would have to be implemented, thus defeating the utility of the SRIs. If the SRIs must be shut down, this could pose substantial problems in remote parts of Alaska– particularly on the North Slope. Incineration of food waste is a key element of measures imposed by state and federal agencies to reduce human -wildlife interaction. For example, the Alaska Department of Natural Resources North Slope Area -wide Lease Sale Mitigation Measures states at Mitigation Measure 4h that, *"Garbage and domestic combustibles must be incinerated whenever possible or disposed of at an approved site…"* and at Mitigation Measure 4k, *"Proper disposal of garbage and putrescible waste is essential to minimize attraction of wildlife…The primary method of garbage and putrescible waste [disposal] is prompt, on -site incineration in compliance with state of Alaska air quality regulations."*[1] At remote work locations, food waste and other waste must be handled in a manner that does not attract wildlife. If disposal without incineration were relied upon as the waste management method, food wastes will invariably have to be stored to await shipment to a landfill – for some as far as 100 miles away. For remote locations that lack year -round or seasonal access to roads, waste must be flown off-site for disposal. During frequent periods of adverse weather, air shipment of waste may not be possible and the waste could remain stored remotely for several days – increasing the likelihood of attracting wildlife. This poses a threat to both man and anim al. Indeed, the very first consideration that a waste management plan required by the Bureau of Land Management for operations in the National Petroleum Reserve – Alaska is this: "The plan shall identify precautions that are to be taken to avoid attracting wildlife to food and garbage."[2] Overall, incineration helps to reduce the environmental footprint of remote operations on the North Slope. Without timely destruction of waste, more space would be needed for waste storage, which might translate to addition al wetlands impact. For roadless operations, the need to transport waste by air increases emissions and noise. The additional work, costs, and risks associated with those efforts cannot be justified, especially when they come with their own environmental impacts. If the existing emission limits could be met using waste segregation measures, the utility of the SRIs would be largely lost. At remote transient sites such as seismic operations where there are no facilities, waste segregation and hauling are logi stically impractical. Plastics will often have food waste on them and separating and storing them for eventual landfill disposal will

[1] http://dog.dnr.alaska.gov/Permitting/Documents/Mitigation_Measures_North_Slope.pdf

[2] National Petroleum Reserve – Alaska, Integrated Activity Plan, Record of Decision, February 21, 2013, Best Management Practice A-2

	increase the likelihood of attracting animals. Segregation of the sulfur-containing food wastes, such as egg shells, vegetables, meats, and dairy products will present obvious problems and, more importantly, render the use of incineration moot. There would be no point in having an incinerator if these wastes could not be burned. And the key element of those measures put into place to minimize wildlife interaction will have been defeated. To date, no add-on control technology has been identified that can provide reliable compliance with the emission limits for the types of waste burned on the North Slope. Industry continues to look for such technology, but making an investment without reasonable assurance of compliance would be unsound. Indeed, EPA has stated, "To the extent that these [small remote incinerators] are located in Alaska, a major difference in these types of units is the inability to operate a wet scrubber in the northern climates and the lack of availability of wastewater handling and treatment utilities."[3]
Suggested Improvement	To solve this problem, EPA should accept newly available SRI emissions data and think outside of its "pollutant-by-pollutant" methodology for setting the floor for new and existing SRIs. Alaska industry is preparing a recommended way to do this within the confines of Clean Air Act section 129 and EPA is urged to extend the February 2018 compliance deadline and work cooperatively with industry to set new standards that are actually achievable.

[3] Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Proposed Rule, 75 FR 31951, June 4, 2010.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Vessel General Permit for Discharges Incidental to the Normal Operation of a Vessel (VGP)
Opportunity for Improvement	This permit is applicable to discharges incidental to the normal operation of a vessel identified in Part 1.2.2 into waters subject to this permit. These waters are "waters ofthe United States" as defined in 40 Code of Federal Regulations (CFR) §122.2 (extending to the outer reach of the 3 mile territorial sea as defined in section 502(8) of the CWA). Much of the confusion surrounding the topic is because of overlapping federallaws and regulations as well as variation in local and state laws. EPA VGP regulations should align with or defer to existing USCG ballast water regulations.
Suggested Improvement	Amend VGP to include in 2.2.3.5.2: In cases in which the Coast Guard approves an alternative compliance date to this implementation schedule in accordance with 33 C.F.R. § 151.2036, the schedule for when ballast water treatment management methods become effective, EPA will consider this action to meet BAT requirements.

Rule	Information Collection Effort for Refinery Effluent Limit Guidelines (ELGs) Study– 308 Request
Opportunity for Improvement	ISSUE: EPA is in the process of issuing a 308 request to study refinery wastewater technology under a theory that more stringent technology-based effluent limitation guidelines may be warranted to address additional loadings of selenium and other contaminants from increased use of Canadian heavy crude feedstock and the installation of air pollution control equipment; and to address dioxins and polynuclear aromatics from particular refinery operations. The outcome of the study could lead to more stringent ELGs. This could lead to additional, technically difficult, costly controls with little to no water quality benefit.
Suggested Improvement	EPA should not issue the ICR and/or subsequentlyconclude that existing technology is already sufficient to protect water resources.

Rule	Spill Prevention, Control, and Countermeasure, 40 CFR 112
Opportunity for Improvement	Complexity and ambiguity of the rule invites regulatory misinterpretation and inequitable enforcement; excessive conservatism, particularly for facilities remote from navigable waters; and unreasonable cost burdens.
Suggested Improvement	Constrain the rule to economically achievable containment; increase applicability thresholds, including the volume threshold to 10,000 gallons; and expand exemptions/off-ramps.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	Proposed Data Collection Submitted for Public Comment and Recommendations of a Proposed Information Collection Plan on "Health Risks for Using Private Water Wells for Drinking Water, originally published at 81 Federal Register 12902 on and released as an ICR on March 11, 2016 and Submitted an Information Collection Request to OMB on the same topic onJune 22, 2016 (81 Federal Register 40703).
Opportunity for Improvement	API's primary concern was the lack of detail in the actual notice regarding the variables which could affect the outcome of the investigation. The Agency should: • Develop specific and appropriate selection criteria to ensure there is no bias from homeowners when choosing a population of private water wells for the investigation. • Indicate how it will consider the geology/hydrogeology where the selected private water wells exist. • Determine how baseline water quality work will be undertaken to understand the aquifer and naturally occurring chemical and biological constituents. • Determine how the implication of positive/negative urine and blood samples be attributed to water rather than other cause. • Develop a response plan should a "contaminant" be found above some health limit and communicate the health limit selected to serve as the baseline. • Determine the anticipated baseline work with respondents to understand individuals' health conditions before the sampling begins. • Follow proper sampling protocols for biological specimens.
Suggested Improvement	The proposal should be reworked to address the concerns raised in the comments API submitted.

Rule	2017 CWA Nationwide Permit 12, SC 17
Opportunity for Improvement	2017 Special Condition 17: "Tribal Rights. No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands." In the 2017 language "more than minimal adverse effects" is vague and subject to multiple interpretations making the conditions for Tribal consultation more unclear.
Suggested Improvement	Revert back to previous language

Rule	Clean Water Act Section 404(c)
Opportunity for Improvement	Clean Water Act 404(c) allows EPA to deny use of a defined area as a disposal site for dredge and fill activities whenever EPA wishes to make such a determination on the basis of impacts to aquatic life, wildlife or water supplies, be it prior to or even after US Army Corp of Engineers (USACE) has issued a permit authorizing those dredge and fill activities. This provision creates regulatory uncertainty, the potential for high restoration and mitigation costs, and loss of access to sites for industrial activities.
Suggested Improvement	1) A regulatory provision constraining EPA's actions under 404(c) to prevent EPA from withdrawing a previously issued USACE dredge and fill permit on this basis; and to allow EPA, in consultation with USACE, to condition but not prohibit USACE issuance of a dredge and fill permit authorizing construction activities at a site. 2) Repeal and replace the Clean Water Rule to provide clarity on the definition of Waters of the U. S. applicable to CWA 404(c).

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Toxics

Rule	Addition of Natural Gas Processing (NGP) Facilities to the Toxics Release Inventory (TRI); Community Right-to-Know Toxic Chemical Release Reporting Proposed Rule published at 82 Fed. Reg 1651 on January 6, 2017 with a comment period extension published at 82 Fed. Reg. 12924 on March 8, 2017.
Opportunity for Improvement	On October 24, 2012, the Environmental Integrity Project (EIP) filed a petition with the EPA to add upstream activities to TRI reporting. EPA did not formally respond but separately included TRI review of the upstream sector in its 2013 regulatory agenda. On January 3, 2014 EPA published a notice of receipt of this petition and established a formal docket number to be used to view the petition and related documents. On January 7, 2015, EIP filed suit to compel EPA to make a decision on the petition. After almost a year of legal activity, on October 22, 2015, EPA denied in part the original petition, specifically with regards to upstream sector activity, and granted in part regarding the addition of natural gas processing (NGP) facilities to TRI reporting. On January 6, 2017 EPA published the proposed rule. EPA in its determination of applicability of NGP to TRI reporting, underestimated the associated administrative and financial burdens, and overestimated the benefits gained from the proposed rule.
Suggested Improvement	This regulation should be withdrawn, as EPA did not provide sufficient cause as to why NGP should be subject to EPCRA Section 313.

Rule	Hydraulic Fracturing Chemicals and Mixtures ANPRM originally published at 79 Fed. Reg. 28664 on May 19, 2014 with a comment period extension published at 79 Fed. Reg. 40703 on July 14, 2014.
Opportunity for Improvement	Agency requested information that should be reported or disclosed for hydraulic fracturing chemical substances and mixtures and the mechanism for obtaining this information under TSCA 8(a) or 8(d) or both. The information that would be collected under a TSCA section 8(a) and/or 8(d) rule for chemicals and mixtures used in hydraulic fracturing is already available to EPA. The Agency has more toxicity and exposure information on the additives used in hydraulic fracturing than it has on many other existing chemicals, and available information is more detailed and extensive than information typically collected under TSCA.
Suggested Improvement	The ANPRM should be withdrawn. The Lautenberg Chemical Safety Act (LCSA) creates a risk-based framework for the prioritization and risk evaluation of chemicals, including those used in hydraulic fracturing.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	Lautenberg Chemical Safety Act (LCSA) Section 6 implementation
Opportunity for Improvement	The proposed "framework" rules to implement LCSA have significant flaws that would render them ineffective, including: • Inadequate mechanisms for designating low-priority chemicals; • "Pre-prioritization" EPA activities that would not be transparent; • Lack of adequate clarity on what information sources EPA will use for prioritization and what level of information the Agency will consider sufficient for prioritization; • Unnecessary inflexible focus on all conditions of use in prioritization and risk evaluation; • Reliance on generic guidance in the risk evaluation proposed rule, in lieu of transparency on the specifics of how EPA will conduct risk evaluation; and • Lack of definition of key terms and insufficient clarity on foundational concepts in the risk evaluation proposal. • Casts a wider net on Section 5 PMN reviews that result in unwarranted risk findings and consent orders, contributing to regulatory review delays and increased burden. In order for these important framework rules to be transparent, effective, and operate as LCSA intended, the final rules need to correct the flaws noted above and others that commenters on the proposed rules have flagged.
Suggested Improvement	The proposals should be reworked to reflect the concerns of API, ACC,AFPM and other affected businesses.

Rule	Integrated Risk Information System (IRIS)
Opportunity for Improvement	The Integrated Risk Information System (IRIS) is an EPA program to evaluate the hazards of chemicals and the doses at which those hazards may lead to adverse health effects. EPA's regions and regulatory offices use IRIS values to set regulatory levels in EPA air, water, waste and other programs decisions. The conclusions EPA makes through IRIS ripple through the Agency's regulations, and have led to unnecessarily stringent regulations in some cases. Moreover, IRIS relies on data, information, or methods that are not fully publicly available. In the IRIS program, EPA applies "science policy" to calculate toxicity values. The program generates toxicity values that rely on multiple default adjustment factors to address uncertainty in toxicity estimation. EPA's IRIS methods inflate toxicity estimates, which are then used in EPA regulations in many programs. The rationale for choosing the scientific data to be used as the basis for the IRIS numbers is not transparent. The IRIS program is inefficient and not based in sound science, using overly conservative assumptions in lieu of weight-of-evidence and other established scientific principles. The Lautenberg Chemical Safety Act (LCSA) establishes a framework for chemical risk evaluation and includes scientific standards in amended TSCA section 26. All data sources the Agency now uses to generate and analyze toxicity information should be consistent with those standards, and IRIS would need to be significantly revamped to meet them.
Suggested Improvement	Revamp IRIS program through an independent panel/committee

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	TSCA Premanufacture Notification (PMN) 40 CFR Part 720
Opportunity for Improvement	Since the June 2016 passage of the Lautenberg Chemical Safety Act (LCSA), EPA has made changes to its policies for review of TSCA section 5 notices for new chemicals (and section 5 exemption notices). The changes were not intended by LCSA, and have brought EPA's new chemical review to a virtual standstill. The situation in the new chemicals program is resulting in significant impacts on the ability of companies to move forward with technology and business plans that involve new chemicals. TSCA provides for a 90-day review period for new chemicals review, which EPA largely has adhered to in reviews over the past 40 years. However, of hundreds of PMNs under review since June 2016, only about 10% have passed through the process to commercialization. EPA has initiated regulatory action (so-called "5(e) orders") on over 80% of the chemicals under review, as compared to less than 5% in previous years. EPA has made the program changes unilaterally, without transparency or due process
Suggested Improvement	EPA should revert to the in place PMN-program pre-LCSA, and then make any necessary changes through notice and comment rulemaking, as opposed to Agency guidance.

Rule	Notification of Chemical Exports—Toxic Substances Control Act (TSCA) Section 12(b) 40 CFR Part 707 Subpart D
Opportunity for Improvement	TSCA export notification requirements have no health or environmental benefit, and are a prime example of an unnecessary bureaucratic program that should be eliminated. The only intended purpose of TSCA export notification is to enable EPA to notify a receiving foreign country that a chemical being exported to the country from the U.S. is subject to a TSCA action. There is no reason to believe that the information EPA provides is of any use to receiving countries, and more importantly, there are no benefits to the U.S. public interest. Furthermore, the current state of communication and technology has rendered EPA's notices to foreign countries obsolete. When TSCA was enacted in 1976, it would have been difficult for foreign governments to know what chemicals EPA regulated under TSCA. Now this information is readily available on the Internet. TSCA section 12(b) does require that exporters notify EPA of exports and that EPA provide receiving countries with notices, but it does not specifically mandate that EPA carry out its statutory obligation in the manner that it currently does.
Suggested Improvement	Repeal TSCA export notification requirements.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Waste

Rule	Financial Responsibility Requirements for Facilities in the Chemical, Petroleum and Electric Power Industries (Jan. 11, 2017, 82 Fed. Reg. 3512)
Opportunity for Improvement	Under this Notice of Intent, EPA is indicating that it is proceeding to consider CERCLA financial responsibility for other industries besides mining, including the petroleum industry. CERCLA financial responsibility would be both costly and unnecessary for petroleum facilities. Petroleum manufacturing facilities are already subject to comprehensive federal and state environmental regulations that minimize the risks of future CERCLA liability. In addition, a significant amount of material managed by petroleum refineries is excluded from the definition of hazardous substance and therefore outside the scope of CERCLA 108(b).EPA has not demonstrated the need for CERCLA financial responsibility, particularly since petroleum is exempt from the federal definition of a hazardous substance (and therefore CERCLA liability), and financial responsibility requirements already exist under RCRA addressing similar risks. Finally, most refineries are operated by economically strong companies and are unlikely to require public funding to address releases
Suggested Improvement	A final determination by EPA that CERCLA financial assurance for the petroleum sector is not necessary.

Rule	Definition of Solid Waste (Jan. 13, 2015, 80 Fed. Reg. 1694)
Opportunity for Improvement	EPA's definition of solid waste (DSW) defines what materials are wastes and, therefore, what materials are potentially subject to stringent regulation under RCRA. EPA has expanded this definition so that it captures many materials that are not being discarded, but instead can be beneficially reused in a production process or as fuels, including many materials from petroleum facilities that can be reused in this manner. This creates unnecessary waste management costs and discourages the beneficial reuse of valuable materials.
Suggested Improvement	Reopen the rulemaking to limit the definition and exclude materials that have a beneficial reuse, including materials that can be reinserted into the refinery or safely used as fuels. Note: API and other industry parties filed petitions for review of the 2015 DSW rule, challenging certain provisions of EPA's changes to the definition of solid waste.

Rule	Financial Responsibility Requirements Under CERCLA § 108(b) for Classes of Facilities in the Hardrock Mining Industry (Jan. 11, 2017, 82 Fed. Reg. 3388)
Opportunity for Improvement	Proposed rule establishes important precedent for EPA's imposition of financial responsibilty requirements under CERCLA. The proposed rule imposes a complex process for facilities to calculate the amount of financial responsibility required. EPA's own estimates are that the rule will cost individual mining facilities between $1 and $19 million per year. In imposing this rule, EPA has neither adequately demonstrated the need and has ignored various other regulatory programs that address the same risks, such as state mining reclamation laws.
Suggested Improvement	A determination by EPA, after receiving public comment on the proposal, that financial responsibility is not necessary or appropriate for mining facilities.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	Hazardous Waste Generator Improvements Rule (Nov. 28, 2016, 81 Fed. Reg. 85732)
Opportunity for Improvement	This rule made a wide range of changes to the standards for generators of hazardous waste, including several API supported. It also made a significant and unnecessary change by creating a distinction in the requirements between what EPA calls "independent requirements" and "conditions for exemption." The result is that even minor deviations from the generator standards could result in a facility being considered an unpermitted RCRA facility and subject to both disproportionate enforcement and a range of unnecessary requirements, such as RCRA corrective action. The closure requirements for central accumulation areas will restrict the flexibility facilities have to make changes to their operations and impose burdensome notification and post-closure requirements more appropriate for permitted treatment storage and disposal facilities (TSDFs) than 90-day storage areas. Many of the new requirements for contingency plans, particularly the requirement to develop a quick reference guide, are not appropriate or necessary for the many petroleum facilities with trained, internal emergency response teams and which are already subject to stringent process safety management, risk management, and emergency response requirements under other regulatory programs.
Suggested Improvement	Initiate an action to eliminate the distinction between "independent requirements" and "conditions for exemption." Rescind the closure requirements for central accumulation areas. Eliminate requirement to track containers over the life of site. The focus should solely be on if/when the site closes. Provide an exemption from the quick reference guide for facilities with internal emergency response capabilities. Note: API and other industry parties filed a petition for review of this rule challenging the "conditions of exemption" issue identified above.

Rule	Identification and Listing of Hazardous Waste (listing of K050) (May 19, 1980, 45 Fed. Reg. 33084)
Opportunity for Improvement	In 1980, EPA listed "heat exchanger bundle cleaning sludge from the petroleum refining industry" as a hazardous waste (K050) because of the presence of chromium from the use of corrosion inhibitors in cooling water. Refineries no longer use chromium in corrosion inhibiters yet EPA has never rescinded the listing. Refineries must therefore unnecessarily manage this waste under stringent and expensive hazardous waste rules.
Suggested Improvement	EPA rescinds the listing for K050.

Rule	Addition of a Subsurface Intrusion Component to the Hazard Ranking System (Jan. 9, 2017, 82 Fed. Reg. 2760)
Opportunity for Improvement	This rule will introduce burden and expense, while diverting federal resources with little or no environmental benefit. Most sites with significant vapor intrusion issues are already being addressed under CERCLA or other remedial programs. For other sites, CERCLA is an unnecessary and costly approach to addressing vapor intrusion and these sites are more effectively dealt with through state or even local government programs.
Suggested Improvement	Candidate for repeal.

Attachment 1 -- API Comments on Specific Regulations
(top priorities highlighted in yellow)

Rule	Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312 Chemical Inventory Requirements (40 CFR Part 370)
Opportunity for Improvement	Under regulations pursuant to EPCRA section 311, facilities must submit safety data sheets (SDSs) for each hazardous chemical present on-site at or above the reporting thresholds to their State Emergency Response Commission (SERC), Local Emergency Planning Commission (LEPC), and local fire department. The reporting thresholds are lower for "extremely hazardous substances" listed at 40 CFR 355, Appendix B. Facilities may choose to submit a list of the hazardous chemicals grouped into hazard categories instead. Although EPCRA section 311 regulations require a one-time submittal, there is another annual inventory report required under EPCRA section 312, which is burdensome and of minimal value. Facilities that are required to submit SDSs or the list of hazardous chemicals under EPCRA Section 311 are required to submit an annual inventory report for the same chemicals (EPCRA Section 312 requirement). This inventory report must be submitted to the SERC, LEPC and local fire department by March 1 of each year. Generating the annual inventory reports is labor intensive, as large sites have thousands of SDSs to include. There has never been any regular auditing of these reports by EPA or state agencies, which calls into question their significance. The value of these reports to emergency responders or for any other meaningful purpose to protect the community or environment is questionable.
Suggested Improvement	Amend the regulations to require submittal of a one-time inventory of Extremely Hazardous Substances as defined in 40 CFR part 355 Appendix A and Appendix B with ranges (i.e., <10klbs, >10klbs and <100klbs, and so forth). Require resubmittals only if there are significant changes.

Other

Rule	1980 National Contingency Plan (NCP) (40 CFR 300), and as amended, 2005 EPA Contaminated Sediment Remediation Guidance for Hazardous Waste Sites / 2002 Principles for Managing Contaminated Sediment Sites
Opportunity for Improvement	The EPA is not following risk management principles as outlined in the NCP regulations and EPA guidance manuals. Several regions apply arbitrary criteria and methods to artificially derive below regional background clean-up criteria leading to multiple +$1B remedies.
Suggested Improvement	Work with HQ staff to ensure EPA regions follow applicable regulations and guidance. For remedies >$100M, record of decisions should be approved by HQ staff. Increase authority of CSTAG to oversee region actions. Ensure source control / realistic risk and integrative remedies inclusive of capping / natural recovery and dredging are equally applied.

Rule	National Enforcement Initiative (NEI)
Opportunity for Improvement	The NEI has been focused on the oil and gas industry in recent years, with an undue impact and evaluation of the industry's continued operations.
Suggested Improvement	The NEI should be managed to not focus repeatedly on one industry. Smart effective regulations, along with state enforcement programs, should allow EPA to shift away from NEI altogether.

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May 15, 2017

Ms. Samantha K. Dravis
Regulatory Reform Officer and Associate Administrator, Office of Policy
US Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460
Submitted via www.regulations.gov

Re: EPA-HQ-OA-2017-0190 (82 FR 17793)

Dear Ms. Dravis:

The American Petroleum Institute ("API") is pleased to provide comments to the US Environmental Protection Agency ("EPA") in response to the EPA's solicitation of input from the public to inform its Regulatory Reform Task Force's evaluation of existing regulations. API represents over 625 oil and natural gas companies, leaders of a technology-driven industry that supplies most of America's energy, supports more than 9.8 million jobs and 8 percent of the U.S. economy, and, since 2000, has invested nearly $2 trillion in U.S. capital projects to advance all forms of energy, including alternatives.

Background

America is now the world's leading producer and refiner of oil and natural gas, a reality that was unimaginable just a decade ago. We've transitioned from an era of energy scarcity and dependence to one of energy abundance and security. The developments of the past decade have brought cost savings for American consumers, good paying jobs, renewed opportunities for U.S. manufacturing, a stronger economy and greater national security. Record U.S. production and refining is happening alongside greater environmental progress: CO_2 from power generation is down to near-30 year lows, thanks in large part to greater use of natural gas. Also, cleaner burning transportation fuels and industry investments in emissions reducing technologies have enabled reduced emissions of criteria air pollutants. In 2015, energy-related savings put an extra $1,337 back in the pocket of the average American family, and AAA reports that drivers saved as much as $550 in fuel costs. Energy abundance has helped cut energy and material costs for American manufacturers and is helping to attract manufacturing back to the U.S.

Technological innovations and industry leadership have propelled the oil and gas industry forward, despite the unprecedented level of federal regulatory actions targeting our industry. Consistent with President Trump's stated objectives of American energy independence and economic growth, EPA and other federal agencies should embrace and advance a regulatory system that promotes access to domestic oil and natural gas resources, streamlined permitting and cost-effective regulations. In 2011 and 2015, API supported EPA efforts to relieve the burdens imposed by its rules and the time has come to review those regulations and the additional requirements imposed by the previous Administration, while continuing to promote public health, safety and the environment as industry and citizens support.

API has recently submitted detailed comments to the Department of Commerce and other agencies to improve the manufacturing climate in the United States. (See docket DOC-2017-0001). The business community, including the oil and natural gas industry, relies upon a cost-effective regulatory system that promotes the certainty and predictability necessary to make the massive capital investments required to bring energy and other projects to the U.S. economy.

Key EPA regulations

Below, we highlight three of the key regulations which we urge EPA to review: oil and gas New Source Performance Standards (NSPS), Renewable Fuels Standards (RFS) and Ozone National Ambient Air Quality Standards (NAAQS) implementation. EPA Dockets EPA–HQ–OAR–2010–0505, EPA–HQ–OAR–2016–0004, and EPA-HQ-OAR-2016-0202 respectively contain API's recent comments on these three regulations. Greater detail on those and other regulations is found in Attachment 1, which contains API's detailed comments for the EPA regulatory review.

First, regarding the oil and gas final NSPS rule issued last year,[1] API submitted a detailed petition for administrative reconsideration of the final rule to Administrator McCarthy in August, 2016. The previous 2012 standards and innovation are already effectively reducing emissions. We are encouraged by EPA's April 4, 2017 announcement to review the 2016 standards,[2] and API supports a full review of all elements of the rule and the revision of the standards. Additionally, we recommend that EPA act quickly to extend the rapidly approaching compliance deadlines while the agency reconsiders the rule. EPA should also withdraw the Control Technique Guidelines it issued in October 2016, which share the same basis as the NSPS rule and call for similar requirements as the NSPS rule.

Second, there are a number of problems with the outdated Renewable Fuel Standard Program. API recommends:

(1) EPA should utilize its waiver authority to reduce the advanced, cellulosic, and total renewable fuel obligations to ensure the mandate does not exceed the E10 blendwall.
(2) In order to maintain a market for ethanol-free gasoline, EPA should not set a RFS mandate that would cause the average ethanol content to exceed 9.7 percent of projected gasoline demand. EPA should use realistic projections of E0, E15, E85 and cellulosic demand when setting the annual Renewable Volume Obligations.
(3) EPA should reject calls to move the RFS Point of Obligation. The RFS has significant structural flaws, and moving the point of obligation will not alleviate them; it will simply reallocate the problems to a different group of fuel supply chain participants. The issue was considered by the two previous administrations and both appropriately decided to place the obligation with refiners and importers.
(4) EPA should work with Congress to reform and ultimately end this unworkable program as the program does not reflect current market realities and it creates the potential for economic harm.

[1] Final Rule (June 3, 2016; 81 *Fed. Reg*. 35,824) for the Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources (NSPS OOOOa rule)
[2] 82 *Fed. Reg.* 16,331

Third, regarding the Ozone NAAQS, API has commented previously that the more restrictive ozone standards imposed by EPA in late 2015 were unnecessary, because ambient ozone levels were declining and the public health was already protected with an adequate margin of safety. We also pointed out, as EPA correctly identified, that ozone levels would keep falling. Unfortunately, EPA's new standards create tremendous burden on states and risk significant impacts on job growth, and the potential number of U.S. counties thrown out of attainment could more than triple.

API supports EPA reconsideration of the 2015 Ozone NAAQS based on the issues API identified in its previous comments and court briefs, and is encouraged by EPA's motion to delay oral arguments on the 2015 Ozone NAAQS, while an internal review of the final rule is undertaken. It is critical that the EPA complete this review quickly as deadlines pertaining to the 2008 and 2015 ozone NAAQS are quickly approaching. If the EPA decides not to reconsider the 2015 Ozone NAAQS after its review, , we encourage EPA to expeditiously revoke the 2008 Ozone NAAQS as proposed in the 2015 Ozone Nonattainment Area Classifications and SIP Rule in order to avoid unnecessary burden associated with implementing two Ozone NAAQS Simultaneously.

Comprehensive Review of EPA Regulations

In addition to the detailed comments contained in Attachment 1, as part of the review process API suggests, in no priority:

1. The cumulative cost impacts of regulations on individual industrial sectors be considered.
2. The review process seeks and utilizes actual compliance costs from impacted industries to the maximum extent possible.
3. The benefits attributable to any rule be determined based on measurable metrics to the maximum extent possible and be clearly attributable to the regulation under review.
4. Benefits are not double counted, i.e., the same benefits being attributed to multiple rules.
5. The science and data used to support a regulation should be reviewed to determine if they are still valid based on scientific integrity, consistent with EPA's Principles of Scientific Integrity and Policy (2012), with meaningful disclosure of all potential areas of bias, guarding against manipulation or misinterpretation. New information available since promulgation of the rule should be considered, consistent with the provisions mentioned above.
6. Reporting burdens be closely examined to evaluate if the amount, method and frequency of data collection are actually being used to any beneficial purpose and are actually necessary to meet the objectives of the regulation.
7. EPA should consider greater use of general permits as a cost effective permitting alternative.
8. EPA should evaluate how regulations can be written more clearly.
9. EPA should consider incentives for enhancing self-compliance auditing under the EPA Audit Policy and voluntary programs.
10. EPA should consider increasing flexibility in rules to allow sources broader usage of available technologies to monitor, model, and demonstrate compliance. Rules dictating precise monitoring, repair, modeling or compliance methods should be reviewed to eliminate outdated methods (i.e. Method 21 for LDAR monitoring).
11. All rules, including those subject to legal challenges, should be included in the review process.
12. Duplicative and overlapping regulations should be curtailed.
13. Regulations should be examined for any unintended, negative effects on recycling (i.e., regulations that create economic barriers to recycling).

Attachment 2 contains suggestions for future regulations and Attachment 3 highlights relevant economic impact studies.

In conclusion, we look forward to further working with Administrator Pruitt, EPA leadership and staff on these and other rules. Federal regulatory policy can either strengthen or weaken the U.S. energy renaissance, with impacts that extend far beyond our industry. Regulatory actions should be rooted in sound science and data, with a consideration of the costs and benefits, while protecting public health and the environment. With these goals in mind, we stand ready to work with EPA and the rest of the Administration to find reasonable solutions to the challenges before us.

Please do not hesitate to contact me via email at Feldman@api.org via phone at (202) 682-8340 for any clarification or supplemental information.

Sincerely,

Howard J Feldman

Attachments 1-3

Attachment 2
Future Regulations

1. Regulations need to be given a chance to take affect and be implemented before additional requirements controlling the same pollutants from the same sources are rolled out.

2. EPA needs to avoid rushing regulatory development with arbitrary, politically-motivated deadlines. This results in poorly crafted regulations leading to use of private and government resources on multitudes of regulatory revisions or expensive and protracted litigation. This places great cost on industry with no corresponding environmental benefit.

3. EPA should use the results of the review to improve cost/benefit analysis of future proposed regulations.

4. Where EPA identifies excessive regulatory burden, revisions should be made promptly to those regulations to eliminate wasted efforts.

5. EPA needs to look at the broader impacts of its regulations when it is promulgating them. This is inclusive of job impacts, energy security, and viability of regulated and indirectly impacted industries. For example, when EPA was promulgating the section 202 tailpipe light duty vehicle and then the truck standard, it did not consider and quantify the ramifications on stationary sources. The full effect of these regulations was not considered in the rulemaking and there was significant impact upon stationary sources.

6. EPA needs to adhere to the Administrative Procedures Act and other requirements for promulgating regulations and actually conduct detailed analysis prior to rulemaking. These would include, among others: a review of EPA's Information Quality Act Guidelines, where applicable; a detailed Regulatory Flexibility Act analysis to determine the impact of a regulatory action upon small businesses before certifying there is no significant economic impact; Unfunded Mandates Act to determine the least costly, most cost-effective, or least burdensome alternative that achieves the objective of the rule; Paperwork Reduction Act analysis to see if Office and Management and Budget approval needed for information collection requirements of a rule; an E.O. 13211 review to determine impact on energy supply, distribution and use; an E.O. 12866 review to determine costs and benefits of regulation and reasonably feasible alternatives identified by agencies or the public and to include considering the option of not regulating; an E.O. 13132 and 13175 review as to federalism – what is the impact of a regulation on state and local governments.

7. EPA, state and local governments, affected industry and NGO's need to revisit the automatic regulatory review triggers of the Clean Air Act. Too often, EPA's priorities are focused on meeting a court-imposed deadline for a regulatory review. If EPA wants to improve its regulations and focus on the most significant regulations, it needs Congressional relaxation of the numerous and frequent reviews that are required.

8. EPA should ask for, and carefully consider, comments related to overlap and duplicative/reporting/compliance between/within EPA regulations and those issued by other agencies such as DOT, USCG, etc. Much confusion and wasted time results from trying to interpret overlapping rules and jurisdictions, and complying with duplicative regulatory requirements.

9. EPA should seek industry input during specific regulation review to allow identification of industry issues and opportunity for introducing improved approaches.

10. Regulations should facilitate, rather than impede reducing, reusing, and/or recycling of raw materials. For example, requiring burdensome TSCA reporting of industrial by-products that are subsequently recycled or reused discourages businesses from engaging in ventures that may have positive benefits for the environment.

Attachment 3
Relevant Economic Impact Studies

List of API studies relevant to the economic impact of the EPA regulations

API contractors prepared the economic impact studies on EPA regulations listed below. API will provide the full studies to EPA upon request.

Report: Economic Impacts Resulting from Implementation of the RFS2 Program
Contractor / date: NERA Economic Consulting; July, 2015
Issue: Renewable Fuel Standard
Summary: NERA concluded, in affirming their previous study, that implementing the Renewable Fuel Standard at statutory volumes was infeasible and would result in severe economic harm. Severe economic harm is caused by insufficient RINs, market disruptions and outrageously high consumer costs for gasoline and diesel.

Report: Economic and Supply Impacts of a Reduced Cap on Gasoline Sulfur Content
Contractor / date: Turner, Mason & Company / February, 2013
Issue: Tier 3 fuel standards
Summary: TM&C quantified the economic and supply impacts of a reduction in the per gallon sulfur cap from current limits, with regards to a lower annual average sulfur limit of 10 ppm. TM&C concluded that the lower annual average sulfur limit of 10 ppm would effectively impose a tighter per gallon cap, but that imposing a tighter cap would increase capital costs by $2 to $6 billion and increase annual operating costs by $900 million. The overall potential loss of gasoline supply due to a tighter cap could be 130,000 barrels per day, but in some regions, shortages could reach 25% to 50% during outages of sulfur reduction units. TM&C showed that a sulfur cap reduction would increase capital and operating costs, reduce compliance flexibility, and could result in potential loss of gasoline supplies.

Report: Addendum to Potential Supply and Cost Impacts of Lower Sulfur, Lower RVP Gasoline
Contractor / date: Baker & O'Brien; March 2012
Issue: Tier 3 fuel standards
Summary: Baker & O'Brien assessed potential impacts of fuel regulations related to tier 3 fuel standards. Across the scenarios examined, annual compliance cost ranged from $13.2 billion to $2.4 billion and compliance investment ranged from $17.3 billion to $9.6 billion. Scenario parameters closest to tier 3 regulations (sulfur reduction only, no change to RVP) resulted in estimated annual compliance costs of $2.4 billion and compliance investment of $9.8 billion. Allocated to gasoline production costs, the fuel regulations in the scenario increase the marginal cost of gasoline in most markets by 6 to 9 cents per gallon.

Report: A Comparison of U.S. Oil and Natural Gas Policies: Pro-Development vs. Proposed Regulatory Constraints
Contractor / date: Wood Mackenzie; June 2015
Issues: Ozone, Methane emissions from existing sources, Clean Water Act, Refinery NSPS, Renewable Fuel Standard, NEPA
Summary: This study compared a "Pro-Development Policy" path and a "proposed regulatory constraints" path that modeled the total cumulative impacts of 10 regulatory initiatives from the EPA and other federal agencies. Individual impacts of proposed or recent regulations were not calculated. The study found that a path of regulatory constraints could lead to a reduction 3.4 million barrels of oil equivalent in US production, a loss of 830,000 jobs, a decrease of $133 billion per year in the U.S. economy, and a cumulative loss of $500 billion in government revenue.

Report: API Comments on the Proposed Rulemaking – Standards of Performance for New Stationary Sources: Oil and Natural Gas Production and Natural Gas Transmission and Distribution – Attachment E, API's Review of EPA's Cost Benefit Analysis
Contractor / date: Environmental Resources Management, Inc. (ERM); December 2015
Issue: New source performance standard for oil production and natural gas transmission and distribution; (40 CFR Part 50, Subpart OOOOa)
Summary: ERM provided a critical review and analysis of the RIA provided by EPA for the proposed changes to the NSPS OOOOa Rule. ERM found that EPA underestimated the technical costs of controls by nearly $500 million ($310 million versus $806 million), and overestimated the emissions benefits by more than 43,000 metric tonnes, equating to roughly $64 million. As a result, ERM calculated that the rule would result in social net costs, not benefits, over approximately $410 million in 2025. ERM provided additional commentary on the inappropriate use of the social cost of methane by EPA.

Report: A Review of the Damage Functions Used in Estimating the Social Cost of Carbon
Contractor / date: NERA Economic Consulting; February 2014
Issue: IWG Social Cost of Carbon calculation
Summary: NERA performed a literature review regarding IAM damage functions and provided context for the damage functions used in the IWG analysis. NERA found that the uncertainties that underlie the SCC values resulting from uncertainties in damage functions create significant problems within the SCC. Possible damage estimates at a given point could differ by a factor of 20 or more, a fact that is obscured within the SCC. The report concluded that the parameter values and calibration procedure for the damage functions used in the modeling supporting the SCC are arbitrary. As a result, the IWG would need to significantly improve the characterization of uncertainties in the SCC in order to provide credibility.

Report: Energy Market and Macroeconomic Impacts of Compliance with a Rule Targeting Existing Oil and Gas Sources
Contractor / date: Earth System Sciences Inc. (ESS) and NERA Economic Consulting (NERA); Expected May 2017
Issue: Potential existing source performance standard for methane emissions from oil and natural gas operations
Summary: Incremental costs (net of recovered gas) are estimated to be in excess of $3 billion per year. Costs are dominated in the Onshore Production and Gathering segment. Annual reoccurring costs are dominated by leak detection and recovery (LDAR). Estimated reduction of GDP $7 to $11 billion per year and a reduction of jobs supported in the economy of 60,000 to 125,000 job-equivalents. Economic impacts are near the higher end of the range in the early years but continue though end of modeling time horizon (2031).

List of other studies relevant to the economic impact of the EPA regulations

API would like to highlight the following economic impact studies on EPA regulations listed below.

National Association of Manufacturers
Report: Economic Impacts of a 65 ppb National Ambient Air Quality Standard for Ozone
Contractor / date: NERA Economic Consulting; February, 2015
Issue: Ozone NAAQS
Summary: Emission reductions required to attain a national Ozone NAAQS of 65 parts per billion would reduce national GDP by $140 billion per year and result in an annual average loss of 1.4 million job-equivalents. In net present value (over the 2017 to 2040 timeframe) national GDP would be reduced by over $1.7 trillion.

National Association of Manufacturers
Report: Assessing Economic Impacts of a Stricter National Ambient Air Quality Standard for Ozone
Contractor / date: NERA Economic Consulting; July, 2014
Issue: Ozone NAAQS
Summary: Emission reductions required to attain a national Ozone NAAQS of 60 parts per billion would reduce national GDP by $270 billion per year and result in annual average losses of 2.9 million job-equivalents. Net present value (over the 2017 to 2040 timeframe) of national GDP would be reduced by over $3 trillion. In a sensitivity case analysis of potential impacts, if new natural gas wells were constrained by the tighter Ozone NAAQS, average annual losses would be $360 billion in GDP and 4.3 million job-equivalents. The net present value of GDP would be reduced by more than $4 trillion.

American Council for Capital Formation
Report: Technical Comments on the Social Cost of Methane As Used in the Regulatory Impact Analysis for the Proposed Emissions Standards for New and Modified Sources in the Oil and Natural Gas Sector
Contractor / date: NERA Economic Consulting; December 2015
Issue: Social cost of methane, as used in new source performance standard for oil production and natural gas transmission and distribution; (40 CFR Part 50, Subpart OOOOa)
Summary: NERA provided a critical review of the social cost of methane estimates used in the RIA provided by EPA for the proposed changes to the NSPS OOOOa Rule. NERA took an in depth look at the Integrated Assessment Models used to generate the estimates, and provided modeling runs both to replicate EPA's work and provide corrected estimates. NERA found that correcting for errors in EPA's estimate for the social cost of methane (including discount rates, domestic net benefits, and radiative forcing impacts) could lower the social cost of methane by as much as 94%.

Report: The Impacts of Restricting Fossil Fuel Energy Production
Contractor / date: OnLocation Inc.; April 5, 2017
Issue: Opposition to Fossil Fuels
Summary: Based on the models used, a U.S. policy of "keep it in the ground" is projected to generate the following impacts relative to EIA's Annual Energy Outlook 2016 Reference Case. The keep it in the ground scenario includes no new oil and natural gas leases on private, State or federal lands, a ban on hydraulic fracturing, no new or expansions of existing coal mines, and no new energy infrastructure to transport oil and natural gas within and outside of North America.
US impacts by 2040:

- Loss of 5.9 million jobs
- Loss of $11.8 trillion in cumulative GDP
- Potential increase of $4,552 annual energy expenditures per household
- Potential increase of $40 in the price of a barrel of crude oil (WTI)
- Potential increase of $21 in the cost of natural gas (MMBTU)
- Potential increase of 56.4 percent in retail electricity prices