

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator McCarthy:

Enclosed for your consideration is the Report of the Small Business Advocacy Review Panel (SBAR Panel or Panel) convened for the EPA's planned proposed rulemaking entitled "Emission Standards for New and Modified Sources in the Oil and Natural Gas Sector." This notice of proposed rulemaking is being developed by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act (CAA).

On January 14, 2015, the Obama Administration announced its next steps to cut methane emissions under the March 2014 Strategy to Reduce Methane Emissions. That strategy, part of the Administration's Climate Action Plan, identified the oil and gas industry as a key source of methane emissions and set out a series of steps to reduce those emissions while allowing continued responsible growth in U.S. oil and natural gas production.

The EPA is developing a rule that proposes to reduce emissions of greenhouse gases, including methane, and volatile organic compounds (VOCs) under its New Source Performance Standards (NSPS) for the oil and natural gas industry. Those cost-effective standards, issued in 2012, currently are reducing VOC emissions from several sources in the oil and natural gas industry. The EPA is considering adding equipment and processes to those sources currently covered by the standards. Equipment and processes the agency is considering adding to the NSPS include hydraulically fractured oil wells, pneumatic controllers and pumps, leaks from new and modified sites, and compressor stations.

On June 16, 2015, the EPA's Small Business Advocacy Chairperson convened this Panel under section 609(b) of the Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA). In addition to its chairperson, the Panel consists of the Director of the Sector Policies & Programs Division of the EPA Office of Air Quality Planning & Standards, the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget (OMB), and the Chief Counsel for Advocacy of the Small Business Administration (SBA). It is important to note that the Panel's findings and discussion are based on the information available at the time this report was drafted. The EPA is continuing to conduct analyses relevant to the proposed rule, and additional information may be developed or obtained during this process as well as from public comment on the proposed rule. The options the Panel identified for reducing the rule's economic impact on small entities will require further analysis and/or data collection to ensure that the options are practicable, enforceable, protective of public health, environmentally sound and consistent with the CAA.

SUMMARY OF SMALL ENTITY OUTREACH

Prior to convening the Panel, the EPA conducted outreach with small entities that will potentially be affected by these regulations. In May 2015, the EPA invited SBA, OMB, and 16 potentially affected small entity representatives to a conference call and solicited comments from them on preliminary information sent to them. The EPA shared the small entities' written comments with the Panel as part of the Panel convening document.

After the SBAR Panel was convened, the Panel distributed additional information to the small entity representatives (SERs) on June 15, 2015, with additional materials sent on June 17, 2015, for their review and comment and in preparation for another outreach meeting. On June 18, 2015, the Panel met with the SERs to hear their comments on the information distributed in these mailings. The SERs were asked to provide written feedback on ideas under consideration for the proposed rulemaking. The Panel received written comments from the SERs in response to the discussions at this meeting and the outreach materials. See Section 6 of the Panel Report for a complete discussion of SER comments.

Their full written comments are also included in Appendix B. In light of these comments, the Panel considered the regulatory flexibility issues specified by RFA/SBREFA and developed the findings and discussion summarized below.

PANEL FINDINGS AND DISCUSSION

Under section 609(b) of the RFA, the Panel is to report its findings related to these four items:

- 1) A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.
- 2) A description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record.
- 3) Identification, to the extent practicable, of all relevant federal rules which may duplicate, overlap or conflict with the proposed rule.
- 4) A description of any significant alternatives to the planned proposed rule which would minimize any significant economic impact of the proposed rule on small entities consistent with the stated objectives of the authorizing statute.

The Panel's most significant findings and discussion with respect to each of these items are summarized below. To read the full discussion of the Panel findings and recommendations, see Section 7 of the Panel Report.

A. Number and Types of Entities Affected

Section 3 of the Panel Report presents a definition of the small entities to which the proposed rule may apply.

B. Recordkeeping, Reporting, and Other Compliance Requirements

SERs made a general request for reduced recordkeeping and reporting requirements. However, apart from requesting limited fugitives tagging and reporting requirements, the SERs did not provide specific recommendations. The EPA did not present specific information about the potential reporting, recordkeeping, and compliance requirements. The Panel agrees that recordkeeping and reporting requirements should be minimized wherever possible.

C. Related Federal Rules

Section 2.3 of the Panel Report contains a discussion of the related federal rules.

D. Regulatory Flexibility Alternatives

Oil Well Exemptions

SERs encouraged the EPA to exempt stripper wells, low pressure oil wells, and any well that requires artificial lift. SERs recommended that the EPA establish an overall applicability threshold based on production, emissions, well depth, well type (horizontal), well pressure, formation, or revenue to limit potential impact of future regulations on small entities.

The SERs offered several threshold alternatives to be applied to the oil well completion requirements which would significantly reduce compliance costs and burden to small entities that the SERs asserted would not affect gas recovery benefits. Some of these comments are described below. Advocacy believes

the EPA had a greater opportunity to advance the discussion by evaluating these alternatives through analysis of the available data. Advocacy further believes that there is enough information to conduct analysis of alternatives now. Advocacy notes that there are several types of thresholds that could be explored by the EPA, such as average production of nearby wells (by oil field, reservoir, or basin), well length or depth, and gas and water pressure characteristics. Advocacy encourages the EPA to do so in the future, in advance of proposal, to facilitate more informed and productive comments from the public which will lead to a better rulemaking.

The EPA has production and well characteristic data on thousands of oil wells through DrillingInfo, which aggregates all well data in the U.S. reported by operators to state agencies. In this database, the EPA could develop thresholds to target geographical areas or well characteristics with greater gas recovery potential than areas or characteristics where costs imposed would achieve little to no benefit. Advocacy believes the EPA should examine the data in DrillingInfo and the studies identified in the White paper for potential alternatives that minimize small entity costs, while achieving significant methane emission benefits. For example, Advocacy performed its own preliminary analysis of the DrillingInfo data, which led us to recommend a production threshold (see below). Advocacy believes the EPA also should consider the peer review and public comments on the white paper and reassess the size and diversity of the oil well completions in a more comprehensive fashion. Advocacy believes the EPA should have provided additional analysis since the publication of the white paper.

The EPA believes that it has reasonably analyzed the available data for this draft proposed rule, and sufficiently documented this analysis through the rule, the technical support document (TSD), and the SBREFA process. However, the EPA notes information gaps and has requested additional data and information through the public comment process.

Gas to Oil Ratio

Advocacy is concerned that the EPA estimate of ten tons of methane reduction per event for oil well completions may be significantly overestimated, based on its analysis of the 2012 Drilling Info database and SER comments. The 2012 analysis includes hydraulically fractured oil well completions with GORs between 300 and 100,000, whereas the 2011 analysis was limited to GORs up to 12,500.

The Panel recommends that the EPA continue analyzing current data, and assess the alternatives mentioned by SERs. In an effort to contribute to the panel process, Advocacy analyzed the EPA data provided. Advocacy found that geographical patterns and well characteristics exist in the data to suggest common sense thresholds. While a 300 gas to oil ratio (GOR) threshold provides some relief for small entities, it is problematic because GOR is not known at time of fracturing when a completion takes place. Advocacy further recommends that the EPA develop a scheme based on the well characteristics of nearby wells in the basin or reservoir to provide an estimate for the GOR parameter. However, the location of the well, and the drill direction are known parameters that could be used. In concert with these other considerations, Advocacy recommends the EPA consider a GOR cutoff closer to 900, as one SER suggested.

The EPA believes that a gas-to-oil ratio (GOR) of 300 scf of gas per barrel of oil produced is an appropriate threshold for facilities to be subject to the well completion provisions of the NSPS. The reason for the proposed threshold GOR of 300 is that separators typically do not operate at a GOR less than 300, which is based on industry experience rather than a vetted technical specification for separator performance. Though, in theory, any amount of free gas could be separated from the liquid, the reality is that this is not practical given the design and operating parameters of separation units operating in the field. The EPA is soliciting comment on whether a GOR of 300 is the appropriate applicability threshold. Additionally, the EPA understands that GOR is not known at the time of well completion, and is soliciting comment on whether the GOR of nearby wells would be a reliable indicator in determining the GOR of a new or modified well.

Low Production Wells

When mapping average daily associated gas of 90 Mcf or above (isolating stripper wells) using county level data, Advocacy found that most (85%) of these greater gas recovery oil well completions occur in about a third of the counties analyzed. Advocacy contends that there are potentially large areas that could be exempted from this requirement without forgoing significant methane emission reduction, or at least phased in to allow time to design proper data collection. For example, PIOGA comments report an average gas volume of only 74 MCFD in Pennsylvania stripper oil wells in contrast to Pennsylvania stripper gas wells averaging 532 MCFD.

The EPA understands that low production wells have inherently low emissions from well completions and many are owned and operated by small businesses. However, the EPA recognizes that identification of these wells prior to completion events is difficult, especially considering that drilling of a low production well may be unintentional and may be infrequent, but production may nevertheless proceed due to economic reasons. The EPA is soliciting comment and information on emissions associated with low production wells, characteristics of these wells and supporting information that would help owners/operators and enforcement personnel identify these wells prior to completion.

Because of these preliminary findings about low production and a lack of evidence that there will be sufficient gas recovery, the Panel recommends that the EPA further analyze and consider exempting low production wells (with an average daily production of less than 15 barrel equivalents) from a REC or combustion requirement during oil well completions.

Vertical Wells

According to a SER comment, vertical wells lack sufficient wellhead pressure or quantity of gas to be separated during completion. Advocacy recommends that since the white papers laid the foundation to the materials prepared for the Panel, the EPA should revisit the information learned through this process, especially as it relates to the specific characteristics of vertical wells. Therefore, as a regulatory alternative, Advocacy recommends the EPA consider exempting vertical wells from oil well completion requirements.

The EPA clarifies that both the 2014 white paper analysis of oil well completions and DrillingInfo data analysis include vertical wells that are hydraulically fractured. However, the EPA understands that there are certain physical well characteristics that may inhibit the operation of a separator, and notes that the rule does not require RECs where their use is not feasible. However, the EPA has not seen sufficient data to support the characterization that a separator will not be able to function for all or the majority of vertical wells that are hydraulically fractured. However, the EPA recommends soliciting comment on the types of oil wells that will not be capable of performing a REC or combusting completion emissions due to technical considerations such as low pressure or low gas content, or other physical characteristics such as location, well depth, length of hydraulic fracturing, or drilling direction (e.g., horizontal, vertical, directional).

Low Pressure Oil Wells

Advocacy recommends that "low pressure wells" should be categorically exempt and could be based on a threshold sales line/gathering line of approximately 250 psi or a simple water gradient formula of 0.465 psi/foot. The emissions associated with these types of wells are so low that even if a separator can be operated for some short period of time, the value of gas does not exceed the cost associated with bringing equipment to the site. As the SERs indicated, these oil completion requirements can be very costly on small firms, particularly with respect to small production wells. The expected gas recovery benefits from oil well completions are expected to be a small fraction of the benefits obtained by the gas wells under the current version of the NSPS rule.

The EPA is aware that oil wells cannot perform a REC if there is not sufficient well pressure or gas content during the well completion to operate the surface equipment required for a REC. In the 2012 NSPS the EPA did not require low pressure gas wells to perform REC, but operators were required to

control those well completions using combustion. However, the EPA recommends soliciting comment on the types of oil wells that will not be capable of performing a REC or combusting completion emissions due to technical considerations such as low pressure or low gas content, or other physical characteristics such as location, well depth, length of hydraulic fracturing, or drilling direction (e.g., horizontal, vertical, directional). The EPA defines low pressure wells as a well with reservoir pressure and true vertical well depth such that 0.445 times the reservoir pressure (in psia) minus 0.038 times the vertical well depth (in feet) minus 67.578 psia is less than the flow line pressure at the sales meter. The EPA recommends soliciting comment on whether this definition is appropriate for low pressure oil wells.

Substitution of Combustion over Green Completion / REC Requirements

Advocacy recommends that the EPA substitute flaring for the green completion requirement (REC), in addition to the consideration of thresholds. This alternative is much more cost-effective, and particularly important for small firms to have a lower cost alternative that achieves a 95% reduction. The PIOGA comments also stated that the use of RECs would adversely impact the productivity and longevity of the stripper oil wells. Alternatively, the EPA could require larger firms to perform the RECs, while allowing smaller firms (using a firm revenue cutoff or other small business size indicator) to combust the remaining gas.

The EPA recommends that RECs be implemented on oil wells, except where their use is not feasible (e.g., technically infeasible for a separator to function, availability of gathering lines). Compared to combustion alone, the EPA believes that the combination of REC and combustion will maximize the recovery of natural resources and minimize venting to the atmosphere. However, the EPA notes that although the flaring in lieu of RECs may be less costly, flaring contributes secondary environmental impacts, nuisance impacts to nearby communities and complicates compliance for owners/operators.

Phase – In Requirements

The Panel recommends that the EPA consider phasing in the well completion requirement over a period of years. The Panel agrees that the EPA solicit comment on whether the well completion provisions of the proposed rule can be implemented on the effective date of the rule in the event of potential shortage of REC equipment and, if not, how a phase in could be structured. The Panel agrees that a phased in approach could be structured to provide for control of the potentially highest emitting wells first, with other wells being included at a later date. The Panel recommends that the EPA solicit comment on whether GOR of the well and production level of the well should be bases for the phasing of requirements for RECs, and if so, what an appropriate threshold for phase-in should be.

Fugitives

Leak Detection Methods

SERs encouraged the EPA to allow a variety of leak detection technologies, including Method 21, AVO, and soap testing. The EPA asserts that use of OGI can reduce the amount of time necessary to conduct fugitive emissions monitoring since multiple fugitive emissions components can be surveyed simultaneously, reducing the cost of identifying fugitive emissions compared to alternative leak detection technologies that require a manual screening of each fugitive emissions component. Advocacy recommends the EPA propose Method 21 or OGI as allowable alternatives. The EPA contends that while Method 21 is lacking because it does not allow the detection of malfunctioning equipment that may not be the focus of the survey, and it is not as cost-effective as OGI, the Panel recommends the EPA solicits comment on whether to allow EPA Method 21 as an alternative to OGI for monitoring, including the appropriate EPA Method 21 level repair threshold. The EPA notes that the proposed rule would allow the use either OGI or Method 21 for resurvey because the resurvey would focus solely on ensuring repairs resolved the leak at the individual component.

Survey Frequency

SERs recommended leak surveys be conducted no more than once per year. Advocacy has questions about the costs of repair and the emission reductions that be achieved through increased survey frequency which Advocacy believes the EPA was unable to address satisfactorily. Advocacy urges the EPA to improve the record basis for its emission reduction estimates and the cost of repairs for Method 21 and OGI, in order to permit more informed comment on the alternatives. Advocacy believes the EPA was unable to adequately explain the basis for the different repair costs vs. frequency for Method 21 and OGI, or the basis for the 40/60/80% emission reductions based on increasing survey frequency from annual to quarterly.

The EPA determined that semiannual monitoring will result in identification and repair of significant fugitive emissions from components, and that using OGI, an operator can survey multiple fugitive emissions components simultaneously reducing the cost of identifying fugitive emissions. Additionally, if fugitive emissions are detected at less than one percent of the fugitive emission components at a well site during two consecutive semiannual monitoring surveys, the proposed rule allows for the monitoring survey frequency for that well site to be reduced to annually. Advocacy had no information upon which to base a recommendation related to the proportion of leaking components, but supports analysis of such an approach. Advocacy also recommends that the EPA provide more analysis and factual foundation for the record to allow commenters to provide more informed advice.

The Panel agrees that the EPA should solicit comment on an alternate proposal option based on an initial annual survey frequency. The Panel recommends the EPA solicit comment on the appropriateness of semiannual monitoring frequency and the proposed provisions for increasing and decreasing the monitoring frequency.

Fugitive Emissions at Well Sites


The Panel recommends not requiring fugitive emission surveys at well production sites, unless there are potentially significant sources of emissions, such as storage tanks. The Panel further agrees that well sites with low production wells (i.e., a well with an average daily production of 15 barrel equivalents or less) should not require fugitive emission surveys.

Fugitive Emissions at Production and Processing Sites, and Compressor Stations at Transmission and Storage Sites

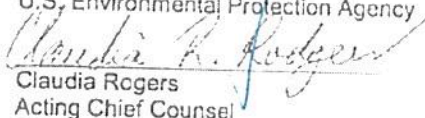
Under Subpart W, gas production and processing sites and compressor stations at transmission and storage sites are required to annually monitor for fugitive emissions and to quantify such emissions. The only missing regulatory component to be considered is to add a requirement to repair detected leaks as appropriate. This is already covered by the May 2015 INGAA Directed Inspection and Maintenance voluntary Program for Transmission and Storage Compressor Stations. The EPA is already considering this program in its recent request for comment on the voluntary methane reduction program for the oil and gas sector. Advocacy recommends that the EPA retain the annual requirement, as Advocacy believes this requirement is entirely duplicative of a fugitives survey requirement, and consider the specific repair requirements for repair identification and repair delay in the DI&M voluntary program as the components of a mandatory program. Furthermore, the EPA's most recent evaluation of the survey cost-effectiveness shows that annual surveys are more cost-effective than semi-annual surveys. Therefore, the Panel recommends the EPA propose options based on semi-annual and annual monitoring. Advocacy recommends that the EPA should also consider allowing each facility to tailor the specific program to site-specific considerations, rather than apply the same requirements uniformly to each plant. The EPA recognizes that Subpart W serves as an emissions inventory, while this rule's intent is to minimize pollution. The EPA believes that the additional survey with semiannual OGI monitoring provides additional leak detection, and cost-effective emission reductions. The EPA recognizes that fugitive emissions may be underestimated based on emerging studies and will continue to evaluate these studies. The Panel recommends the EPA propose an alternate option based on an initial annual frequency for well sites. The Panel recommends that the EPA continue to consider the INGAA DI&M recommendations for leak repairs in the rulemaking.

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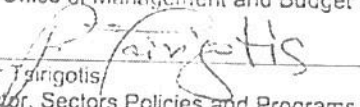
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Enclosure