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Submitted via regulations.gov

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RE: Western Energy Alliance's Comments for the Agency Information Collection Activities; Proposals, Submissions, and Approvals: Information Collection Effort for Oil and Gas Facilities, Docket ID No. EPA-HQ-OAR-2016-0204

Dear Ms. Shine:

Western Energy Alliance (Alliance) appreciates the opportunity to comment on the Information Collection Request (ICR) proposed by the Environmental Protection Agency (EPA). In its Notice regarding the ICR, the EPA states that it "is now seeking more specific information that would be of critical use in addressing Clean Air Act (CAA) section 111(d)." However, the EPA does not have clear authority at this time to promulgate standards of performance for existing oil and gas sources under section 111(d) because they are already regulated under CAA section 112. More fundamentally, EPA has neglected to do a proper endangerment finding on methane in general and from the oil and natural gas industry. A full, honest endangerment finding would likely reveal that the small amount of methane emissions from the wellhead is more than offset by the significant greenhouse gas reductions delivered by natural gas at the consumer side and especially in the power sector. Until such a finding is made, EPA does not have the authority to promulgate existing source performance standards under section 111(d) of the CAA.

In anticipation of EPA moving forward with this ICR regardless, we encourage EPA to engage in a constructive dialogue with Western Energy Alliance and other industry representatives to better understand our industry and the data gathered under this ICR. The ICR should be substantially modified to gather only data that will be valuable in looking at future rulemaking, and to eliminate requests for extraneous information that will not benefit agency functions. Our recommendations in these comments aim to better

focus EPA's requests to ensure the ICR exercise provides useful emissions data to EPA while reducing the overall burden of the requests. In several other instances, we suggest clarifications that will reduce confusion in gathering responses. The most fundamentally important part of the entire ICR effort is to balance the cost to industry with EPA's desired regulatory objectives.

To that end, we are proposing that the ICR be the first step in a robust analytical effort by EPA to determine both the benefits and costs of promulgating emission control requirements to the diverse range of existing facilities in the oil and natural gas industry. We believe EPA can best accomplish this goal by following the peer-review process it laid out in its white papers during the New Source Performance Standards (NSPS) Subpart OOOO regulatory process. A similar white paper on control technology that can be reviewed by stakeholders would be an effective way to allow industry to understand EPA's thought process as it contemplates existing source controls.

Western Energy Alliance represents over 300 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the West. Alliance members are independents, the majority of which are small businesses with an average of fifteen employees.

The following comments are divided into seven general sections: 1) General Comments; 2) Timeline; 3) Part I Data Collection; 4) Part II Data Collection; ETC 5) Definitions; 6) Recipients; and 7) Efficiency. The Alliance appreciates the opportunity to comment on this proposal.

1. General Comments

As EPA contemplates existing source regulation and additional new source regulations, it is imperative that it follow an open, transparent, and data-driven process. To the extent that the ICR can provide additional data on what regulations, if any, are cost-effective, we support EPA's effort. However, as EPA develops its ICR, we encourage it to be mindful of the unique challenges that come with developing regulations for existing sources. Existing wells were not constructed with unknown future regulatory requirements in mind. Therefore, they are particularly sensitive to added cost, which is particularly true for the dynamic nature of the oil and natural gas industry which is prone to commodity price fluctuations and well declines.

a. Cost Data

With that context in mind, we believe that EPA's proposed ICR could be strengthened in two critical ways. First, the requests themselves can be modified to reduce the burden on respondents. Second, the requests can be strengthened by improving the overall utility of the information collected. In some instances, this involves removing extraneous data requests or clarifying EPA's intent. However, in reviewing this ICR, we notice it lacks requests for critical cost data. Given that existing sources are particularly sensitive to added costs, EPA should include data requests that help it determine not just the emissions from a particular source, but also the cost of controls. Low producing wells in particular cannot bear the same costs that larger wells can. Even if a technology looks reasonable for a well producing 1,000 to 5,000 MCF per day, a marginal well may produce just 20 MCF per day. It is unrealistic and impractical to impose the same control requirements on both of these wells, as marginal wells will be unable to bear the cost. In addition, the marginal wells will have much lower emissions than largest producing wells. Without more accurate cost data, EPA will be unable to fully evaluate proposed control requirements across the full spectrum of facilities in the oil and natural gas industry.

The control device cost reflected in Part II of the ICR is of limited utility. First, it only addresses facilities where operators have chosen to install controls and were able to plan accordingly. These numbers will not accurately reflect the cost of retrofitting control devices at an existing location, nor do they account for the sometimes substantial engineering and installation costs associated with connecting equipment to the control device. For example, the cost of a combustor will not include the cost of designing and installing closed vent systems to capture emissions from storage tanks, pneumatic controllers, or other pieces of equipment. We recommend EPA seek installation cost estimates to better understand the full cost of new emission control requirements.

Adding controls to reduce methane emissions from existing oil and gas production operations is not a one-size-fits-all proposition. Due to significant variability in reservoir characteristics, production dynamics, equipment configurations, operational constraints, contractual obligations, operating costs, and commodity prices on a well-by-well basis, costs will far outweigh the benefits in many cases. EPA must consider many direct and indirect factors before developing an accurate cost estimate for installing and operating methane controls. Generally, such estimates are not scalable based simply on the size of the facility or any other single parameter and an oversimplified or generalized approach will cause EPA to understate capital and operating costs and overstate emission reduction.

For example, Alaskan North Slope crude oil production facilities will have drastically different equipment from dry natural gas production facilities in Pennsylvania's Marcellus shale. The climates, production volumes, available supporting infrastructure, and production streams will all shape how sites are configured and operated. However, these drastic differences can exist within the same field. For example, in the Permian Basin, there is significant legacy production from decades-old vertical wells alongside new and prolific horizontal wells. Although the rapid development of unconventional oil and natural gas has attracted significant attention in recent years, there are many other techniques and processes EPA must consider. For example, fields using secondary and tertiary recovery techniques like waterfloods, CO2 floods, and steam injection will have different well types and surface equipment to produce and process hydrocarbons.

The Alliance is concerned that as structured, the ICR will come up well short of providing the necessary information to make reasonable cost determinations about methane emission control strategies.

For example, to design and operate new methane controls on existing tanks and equipment vents like pressure relief devices, the retrofit design approach must include: a fluids forecast; a review of current equipment operations and specifications; documentation of piping size; a review of equipment mechanical integrity; an evaluation of the proposed methane controls, such as a combustor or vapor recovery unit; an analysis of gas collection system piping, compression, and flare; increased site acreage to accommodate additional equipment; and other safety and regulatory permitting considerations.

In order to better account for these costs we recommend EPA develop a control technology white paper to evaluate the cost-effectiveness of emission control strategies. EPA has taken a similar approach to evaluating emissions through its series of white papers on pneumatic devices, liquids unloading, leaks, oil well completions, and compressors. Using this model for control technologies, EPA could follow a peer-reviewed process to understand the best approaches to controlling emissions. Using the information gathered through the ICR and the [Emerging Technology Request for Information](#), EPA could develop engineering scenarios and further outline its proposed control methods, while giving industry and other stakeholders the opportunity to evaluate the technical feasibility of EPA's approach.

b. Confidential Business Information (CBI)

For the Part I survey, EPA asserts that "Part I is not expected to contain any CBI." However, EPA offers no basis for this blanket statement. Operator should be able to designate their

responses as confidential if they believe it is appropriate. It's conceivable that situations could arise that would necessitate a confidentiality determination. The fact that EPA has not foreseen any such situations does not mean that they cannot exist. We strongly encourage EPA to allow operators to request CBI protection for all aspects of the ICR.

2. Timeline

We are concerned that the time allowed for industry to complete both Parts I and II is inadequate and should be revised. Allowing extra time to complete this ICR would not materially affect EPA's ability to evaluate the survey results, but would reduce the time and expense burdens for industry. Plans to release both parts concurrently indicate that EPA does not intend to use Part I to inform the Part II survey. Rather, we encourage EPA to release Part I, evaluate it, and make necessary changes before releasing Part II.

If EPA holds to its proposed schedule, Part I should not be due within 30 days. There is no clear added value in receiving Part I surveys within 30 days and we urge EPA to allow the same deadlines for both Parts I and II. Having an overly-aggressive timeline on Part I adds little value when EPA would need to wait until Part II results are in before completing its analysis. Additionally, the amount of data EPA is requesting for Part I is significantly higher than for Part II in terms of number of sources and companies impacted, so it would be logical to allow additional time for Part I. Further, Part II will be extremely difficult and time-consuming to fulfill. We recommend EPA allow a minimum of 180 days to respond to both parts of the ICR. We are also concerned that 30 days is inadequate for Part I given that EPA intends to mail it to companies, which can take several days or even weeks to get through both external and internal mail systems and to the proper contacts.

For Part II, EPA appears to have grossly underestimated the sheer volume of data being sought. The proposed timeframe of 120 days is inadequate. We urge the EPA group leading the ICR effort to reach out to the EPA's enforcement group currently working on Clean Air Act (CAA) Section 114 requests in North Dakota for oil and gas facility and emissions information. Given the similar nature of the ICR and these 114 requests, the enforcement group can likely give the ICR team a more accurate understanding of the magnitude of this undertaking and the amount of time that will likely be required.

In addition to the burden on agency resources to conduct Part II, the burden on industry will be similarly daunting. Part II contains a remarkable breadth and depth of data that will likely not be readily available for many facilities. For example, EPA is including isolation valve activation emissions estimates, but this information is not currently collected in the Greenhouse Gas Reporting Program (GHGRP) or under New Source Performance

Standards (NSPS) Subpart OOOO or OOOOa. This will be a particularly time-consuming request to fulfill, and EPA does not appear to have fully accounted for these types of burdens in the timing estimates.

Completing EPA's request may also require respondents to commit significant field and travel time. Given EPA's intent to release this ICR during the wintertime, travel logistics to remote field locations may be further complicated by inclement weather and seasonal closures. There can also be restricted access for wildlife.

The request will also overlap with many annual reporting requirements, including EPA's GHGRP and state reports. Many company greenhouse gas experts will be working on GHGRP reporting and the ICR simultaneously. Instead, we recommend EPA target the end of the third or fourth quarter for the ICR reporting deadline.

The compressed timeframe may also impact the overall accuracy of the data collected. For example, emissions data collected during a short span of the year may not accurately reflect emissions around the country on a year-round basis. In places like Wyoming, Utah, and North Dakota there can be extensive use of heat trace pumping equipment during winter months. Extrapolating year-round usage trends about this equipment based on single measurements of emissions during the winter would be inappropriate. Similarly, emission rates may differ greatly during the summer in places like New Mexico and Texas where high temperatures significantly affect the performance of field equipment. The most sensible way to address these seasonal differences is to allow operators additional time to complete the ICR and match data collection to operational conditions. A longer timeframe to conduct the survey will also give EPA a more accurate assessment of industry operations throughout the year.

We're also concerned by EPA's aggressive schedule for reviewing comments and finalizing the ICR. Given the amount of industry resources being devoted to both reviewing and commenting on the ICR, as well as the eventual completion of the ICR itself, EPA does not appear to be allowing itself sufficient time to review comments and adopt the reasonable suggestions made by industry. EPA has indicated it intends to release the ICR by October 30, 2016. However, the current comment period on the ICR closes in August and will be followed by another 30 day comment period to the Office of Management and Budget (OMB). There is barely enough time between now and October 30th to undertake another comment period, let alone enable EPA to conduct any deliberative review of comments and make meaningful adjustments. Additionally, October 30th is not a business day.

3. Part I Data Collection

We have concerns about several of the data collection requirements under Part I of the ICR.

a. General Facility Information

The Part I request contains several pieces of facility data that may be problematic or confusing to report. We suggest EPA clarify that only wells and equipment operated by a company are included in the company's response to EPA to avoid duplicative reporting by both the owner and operator.

Another potential source of confusion is the request for API numbers for wells present at a facility. Due to industry practices with facility centralization that result in more efficient processing and less environmental impact, there are often wells associated with a particular facility that is physically located a quarter mile or more away. We suggest EPA clarify and better define its scope to make it clear whether it intends to include facilities that may connect but are not physically co-located. Similarly, there are situations where facilities are co-located but not connected through shared equipment. For example, it is unclear whether a respondent should report a wellhead as its own "facility" when there are no tanks onsite and the liquids flow to a tank battery at a different location. Should the well's API number be included in the facility report with the tank battery or should it be reported separately as its own facility. We encourage EPA to better define its scope to address these types of situations and avoid duplication.

We are also concerned by EPA's request for the number of employees in the General Information section. Number of employees is not a meaningful number for a variety of reasons, and it is difficult to parse this request to be more focused. For example, many companies are internationally owned or have large presences in other basins, which will not necessarily have any bearing on emissions within the basin of concern. Narrowing the request to number of employees by basin will not be any more useful, as many corporate-level employees may be heavily involved in environmental and regulatory efforts within the basin of interest, despite not being physically located there or exclusively assigned to it. Additionally, number of employees does not capture the number of contractors employed by a company. Contractors make up an important part of many operators' total workforces. Ultimately, we do not envision employee counts being useful to EPA from an emissions perspective. Therefore we recommend EPA strike this request from the ICR.

Should EPA move forward with its request for the number of employees at a company, we recommend that EPA instead focus on whether the respondent is a small business in order to more easily quantify the impact of the ICR on small businesses. To accomplish this, we recommend EPA indicate that the Small Business Administration's definition of a small entity is 1,250 employees excluding contractors and ask respondents to indicate whether they fall under this definition.¹

b. Plugged and Abandoned Wells

The facility-wide count for capped or abandoned production wells is a highly problematic request and should be excluded from the survey for several reasons. Oil and natural gas has been developed domestically since the 1850s and historically, recordkeeping was scant for old wells. In many cases, today's large producing basins have legacy oil and gas production that dates back decades, along with many abandoned wells. Many of these plugged and abandoned wells are so old that today's operators may have no records of them. Many other wells have been exchanged or sold numerous times over their lives. Records from prior owners or operators can be very difficult to obtain in these situations.

In addition to being very difficult to comply with, the collection of plugged and abandoned well data offers virtually no benefit in terms of information to be used to regulate new and existing oil and gas production facilities as there are no emission sources related to plugged and abandoned wells. Current state regulatory requirements for well plugging and abandonment procedures are robust, and it would be infeasible for EPA to attempt to regulate wells abandoned decades ago. Since this information will not be necessary for proper performance of EPA functions, it should be removed from the ICR.

c. Distance to Gathering Lines

Distance from a facility to the nearest natural gas gathering line is another category that is problematic and requires modification. All natural gas wells should be exempted from this requirement, as no rational operator would develop a natural gas well without takeaway capacity, and reporting the distance to gas gathering lines is not a worthwhile exercise. Similarly, an oil well that is connected to gas gathering should simply be able to satisfy EPA with a yes or no answer. Once the connection to gathering has been made, the distance becomes largely irrelevant. For oil wells that are not connected, determining distance to gas gathering would be a time-consuming mapping exercise for every facility with

¹ [Small Business Size Standards by NAICS Industry. 73 FR 12870, March 11, 2008.](#)

questionable benefits.

The relative proximity of gas gathering lines is often irrelevant when capacity issues come into play, which is often the primary driver in areas where gas capture rates are lower. Furthermore, existing sources will be connected to gathering lines where it is feasible to do so. The distance to the nearest gathering line is largely irrelevant and may even be unknown. If an operator has an existing contract with a specific midstream operator to tie in all wells in an area to their pipeline, there may be a closer gathering line that the survey respondent is not going to connect to for contractual or logistical reasons. Reasons could include not having rights-of-way to connect to the closest gas gathering line, or having gas that is not of sufficient quality to connect to the nearest gathering line. Instead, a more appropriate question is whether the facility is connected to a natural gas sales line, rather than distance to the nearest gathering line.

Distance to natural gas gathering lines, in addition to offering limited utility for improving EPA's understanding of industry, is logistically difficult to determine. Much like distance to the field office, addressed below, calculating distance to natural gas gathering lines creates a burden on respondents to locate irrelevant lines that far outweighs the useful benefit of this information. In many instances, operators are contractually obligated to use a particular midstream gas gathering company. Additionally, many marginal oil wells do not produce enough gas to warrant a midstream company to invest in gas gathering lines.

d. Distance to Field Office

Likewise, distance from a facility to a field office is a problematic requirement that would require time-consuming mapping, and offers limited utility. It is unclear what benefit this information will provide for the purposes of understanding facility emissions, yet would be time-consuming to collect. We strongly recommend EPA strike this request or at least make clear what purpose this information would serve for enhancing EPA's understanding of the feasibility of leak detection and repair programs.

The distance to the nearest field office will not accurately portray how industry conducts its field routes. Typically, an employee or contractor will not travel to a facility, back to the field office, then on to the next facility, and so on, but will instead visit several facilities while away from the field office on a pre-planned route. Therefore, the distance to the nearest field office doesn't provide EPA with much insight into how field operations are conducted. Should EPA decide to proceed with the request despite its questionable utility, we recommend several changes.

We recommend that the distance be the shortest year-round driving distance between a field office and the facility which would allow EPA to gain a better understanding of how easily accessible a facility is on a year-round basis. Due to topography or limited road access, straight-line miles are not an appropriate measure. Similarly, many locations are not accessed for parts of the year due to their locations in crop fields, sensitive areas, inclement weather, or for other reasons. Collecting these data would require an extensive, manual mapping exercise. While straight-line distance could be obtained through software mapping, many remote sites cannot be mapped through commercial driving direction programs such as Google Maps. Companies will have to manually map and measure or survey field personnel to determine the driving distance. Due to the level of work required, this request is more appropriate for a sampling of sites and should be moved to Part II.

e. Facility Electrification

While we can certainly appreciate EPA's interest in the availability of electrification, this request is problematic and inappropriate for the Phase I survey. In many cases, the availability of electricity for every facility is not an easy determination and would require companies to review utility bills for entire fields and determine where electricity is being utilized. Although the prevalence of electricity could be an important consideration for understanding what control technologies are suitable where, the practical reality of determining it, which often can be ascertained only through billing records, makes this an extremely time consuming request that will be difficult to determine with certainty for every facility. We recommend instead that EPA make availability of electricity part of its Phase II request.

Additionally, we recommend that EPA clarify that facilities not connected to the electrical grid but merely using temporary generators not be considered electrified. These generators do not necessarily remain onsite and may not have the capacity to operate instrument air pneumatic systems or other systems.

f. Liquids Unloading

We are concerned that liquids unloading is included in the ICR since EPA recently declined to develop new source performance standards for liquids unloading in NSPS OOOOa. It is contrary to Clean Air Act procedures to develop existing source standards in the absence of new source standards.

EPA's decision to avoid regulation of liquids unloading in OOOOa came after an exhaustive examination of liquids unloading practices that concluded:

Data reviewed also show that liquids unloading events are highly variable and often well-specific. Furthermore, questions remain concerning the difficulty of effective control for those high-emitting events in many cases and concerning the applicability and limitations of specific control technologies such as plunger lift systems for supporting a new source performance standard.²

We encourage EPA to remove liquids unloading from the ICR entirely. Successful approaches to addressing liquids unloading in Colorado and elsewhere have steered away from prescriptive regulation and instead focus on best management practices and reporting requirements. The Colorado Department of Public Health and Environment (CDPHE) recognized that operators need flexibility to employ best management practices on a well-by-well basis.³ CDPHE recognized that automated plunger lifts are not pollution control devices and are not used in the field unless the well design, geologic conditions, and gas content are appropriate for it.

Furthermore, the mere occurrence of liquids unloading reveals little information of use to EPA, as it does not address the timing, frequency, technique, or other pertinent information about the process. This question is entirely unbounded. Regardless of whether liquids unloading occurred once in the past year or once over the life of the well, respondents will provide the same answer as this section is currently written. The reality is that liquids unloading will be highly variable over the life of the well and can change in response to shut-ins and other events. The information proposed for collection would offer no meaningful insight into the practice and is therefore not necessary. Should EPA decide to include liquids unloading, the data in Part II would prove much more useful than the data in Part I. We encourage EPA to remove liquids unloading from Part I requirements.

g. Focus on Pre-OOOO Facilities

In order to maximize the utility of the ICR, we recommend that EPA focus on pre-OOOO facilities which is particularly important for two reasons. First, many of the processes being surveyed are already controlled through NSPS OOOO and OOOOa, and therefore EPA should have an accurate understanding of the control requirements in place. OOOO and

² Oil and Natural Gas Sector: Emission Standards for New and Modified Sources, 80 Fed. Reg. 56593, 56645 (Sept. 18, 2015) (proposed rule).

³ [Well Liquid Unloading Frequently Asked Questions](#). CDPHE. August 17, 2015.

OOOOa have clear emission thresholds that indicate how and when facilities will be controlled. Second, for the purpose of developing existing source rules, cost and emission data on older sources are directly relevant, while new facilities are not. New control costs are applied very differently than existing facilities. For example, to retrofit an existing tank battery with controls is not a simple matter of manifolding the tanks together. They can require repair, redesign, and in some cases, even replacement. Therefore we recommend that EPA focus on sources constructed prior to the OOOO applicability date.

h. Number of Separators

EPA should be aware that oil and natural gas operations often utilize two-phase separators, three-phase separators, or both at production sites. A simple count of separators may not provide EPA the information it is seeking. We recommend EPA revise the request to specify whether a separator is two-phase or three-phase.

4. Part II Data Collection

We have concerns about several of the data collection requirements under Part II of the ICR.

a. Facility Information

We suggest EPA clarify that only wells and equipment operated by the company are included in the company's response to EPA which will avoid duplicative reporting by both the owner and operator.

b. Feed Material Composition Analysis

One of the most detailed and burdensome requests EPA included in Part II of the ICR is the requirement for actual measurements of tank and separator feed material composition. Feed material composition analysis (flash gas analysis) is unnecessary and should not be included in the ICR. EPA has flash gas composition data at its disposal through Subpart W reporting at the sub-basin level. These data could easily satisfy EPA's needs for understanding representative trends in flash gas composition across the industry. Indeed, it is unclear how surveying three thousand additional facilities under Part II would substantially improve EPA's existing dataset, and would be highly problematic for operators.

Should EPA decide to move forward with this request despite its overall lack of utility for the ICR, it should be modified significantly. EPA's selected method for direct measurement

of feed material composition for storage tank flash gas analysis, known as the CARB method, is overly prescriptive and not suitable. Limiting the methodology to one or two methods when there are other state-approved methodologies is not prudent. EPA should allow respondents to calculate storage tank flash gas analysis using the Gas Processors Association (GPA) 2103M, GPA 2186-M, or GPA 2286-M methodologies.

The CARB method is more expensive and often less reliable than other flash gas testing methodologies, and requires a significant pressure differential during testing. Many upstream samples taken from atmospheric storage tanks are pressurized and difficult to collect. Based on industry experience, many upstream samples tested with this CARB test will come back with 0 or null results due to inadequate pressure. In order to address this issue, the CARB testing methodology is currently being updated but will not be available by the time respondents begin work on the ICR.

CARB sampling also poses logistical challenges, as shipments are classified as hazardous material and require sample containers to be filled to 90% of capacity when many of these containers are designed to be filled to 80% capacity. In addition to issues with accuracy, safety, and data quality, there may be an insufficient number of laboratories in the United States capable of performing this analysis. Since the CARB method is flawed and not widely used across the country, it is not a commonly performed test, which is particularly problematic given EPA's extremely aggressive 120 day response window. Expanding the number of acceptable testing methodologies would greatly increase the number of available laboratories capable of conducting flash gas analysis. Other testing methods also deliver industry-standard data, thereby not compromising the quality of data collected for EPA. In short, the CARB method is inappropriate for the ICR and should be replaced by other state-approved methodologies.

For a variety of reasons it may not always be feasible to collect samples from the desired facilities during the timeframe of the ICR, including a well being shut in and awaiting workover, maintenance issues, low liquid production volumes, and others. We recommend that EPA allow operators to select a representative sample from a nearby well under these circumstances. Operators could document and justify why they are unable to collect a sample from the requested facility, allowing respondents to balance operational constraints with the desire to provide EPA with the most accurate information possible.

The Texas Commission on Environmental Quality already allows for representative samples to be used and has a specific methodology for detailing when a sample can and cannot be used. It specifies that samples must be within 20 psi pressure and 20 degrees Celsius of the originally requested well and must be taken from the same formation in the

past three years in order to be considered representative.⁴

c. General Well Information

We are also concerned by several requirements for general well information requested in Part II such as well casing inside diameter, well tubing inside diameter, wellbore length, and well configuration. It is unclear what benefit this information provides to EPA, and does not appear to substantively enhance EPA's ability to understand facility design or emissions. We recommend EPA remove these extraneous data requirements from the ICR unless it can justify their benefits. We are concerned that EPA may be incorrectly assuming this data will allow for well blowdown emission calculations. If this is the case, we urge EPA to consider that well casing, well tubing, and wellbore length data are unsuitable for calculating well blowdown emissions because there are numerous other factors that can impact emissions.

Furthermore, information like well depth and well bore length may not be straightforward to obtain. Many wells have multilateral designs like tree roots. Others have capillary strings to enable production from multiple zones without comingling the oil, natural gas, and water from each zone. A capillary string well produces to multiple separators connected to their own tank batteries, with multiple facilities receiving fluids from that single well. Some of the requests in this section are only suitable for single well bores, and can pose problems for other configurations.

Furthermore, for older producing wells much of the data requested in this section may be non-existent. Some wells have been producing for 50 years or longer using the original well completion, making it very difficult if not impossible to obtain data about well casing diameter, well tubing diameter, and produced gas composition from the first 30 days of production.

When this information is available, much of it can be found with state land authorities, such as Texas and Oklahoma. Since EPA is obligated to reduce information collection burdens under the Paperwork Reduction Act, we urge EPA to review the appropriate state records rather than place the burden on industry to gather information already reported elsewhere.

For production facilities, EPA requests the quantity of natural gas extracted from all wells. For oil wells, that number can be estimated, but it is not possible to directly measure

⁴ [Representative Analysis Criteria](#), Texas Commission on Environmental Quality, 2012.

associated gas produced at the wellhead. Associated gas that is not sold is most likely directed to a control device from multiple points in the separation process. Operators do not meter gas directed to a control device because it is technically infeasible. The only way to safely design a flare meter is to size the orifice meter for the maximum possible flow under worst case abnormal operating conditions, which makes accurate measurement for low rates impossible. Instead, operators will often use a gas to oil ratio (GOR) value to calculate total gas production. Because GOR values change over time as oil production declines, EPA should not take associated gas production data as absolute and make unjustified assumptions.

EPA should not request the volume of oil extracted and oil sold from a well as these values are synonymous. The request would require operators to track how much oil is in storage at the end of the year that was produced but not yet sold which is an overly burdensome exercise with no benefit when estimating emissions. In order to eliminate this redundant request, we recommend EPA remove the quantity of all hydrocarbon liquids extracted, cell A54, from the "Facility" worksheet, and only request the volume sold.

Part II also requests the average age of wells onsite under the "Well Sites" tab. There is no emissions related benefit to EPA with this value. Therefore, we recommend EPA strike the request for this information.

c. Land Owned or Leased

EPA requests information on whether the land is leased or owned which would require operators to research land files to make this determination, despite it not providing any clear emissions benefit. If EPA requires this information, then it must make clear what value this information will provide to justify the time and expense.

d. Current Environmental Regulations That Apply

EPA should specify that the request for applicable state rules applies to air quality regulations only, and not to other regulations such as noise ordinances, road traffic requirements, or stormwater permitting that are irrelevant. EPA should also include an option to write in other applicable requirements such as Tribal Federal Implementation Plan (FIP) regulations or requirements from a federal Consent Decree.

e. Well Completion and Workover Information

As with much of the general well information, well completion data requested could likely be obtained through the appropriate state records. We encourage EPA to work with states

to gather well completion information.

EPA is also seeking data on the anticipated date of the next workover. However, gathering this type of information requires clairvoyance on the part of operators to predict changing reservoir conditions, market conditions, availability of equipment, and availability of capital among other factors. Well workovers are decided on a case-by-case basis and information about workovers from one well in a specific field could not necessarily be applied to another well even in the same field.

Information on the date of the last workover may not always be available either, particularly as oil and natural gas assets are sold regularly and multiple changes of ownership over the lifetime of a producing well are common. When the date of the last workover is available, EPA will likely be able to find it in GHGRP data. However, availability of records on older facilities can sometimes be problematic and therefore the date of the last workover may not be available. We recommend that EPA remove next anticipated workover and date of last workover from the ICR or, where possible, to leverage the GHGRP data already available.

f. Control Device Cost Data

While we appreciate EPA seeking cost data, we are concerned that the information requested may not be available to operators or useful to EPA. For example, the historical costs of control devices are largely irrelevant for the purposes of evaluating the cost of new control devices on existing facilities. Using historical costs to make assumptions about current or future costs is comparing apples to oranges. Many new control devices, such as vapor recovery units (VRUs), have improved significantly in terms of their design and have also increased in cost. For example, today's VRUs come with variable motors which are more effective but more expensive. Older VRUs will not reflect those increased costs. At the same time, other control devices may have decreased in cost over time due to increased adoption causing a larger market and more price competition which would likewise not be reflected in historical data. Instead, we encourage EPA to focus on current control device costs.

Additionally, cost data cannot always be extrapolated from one basin to another. Costs for installation of the same control device may be significantly more in remote areas than in basins closer to metropolitan areas due to differences in the availability, or lack of availability, of manpower and equipment, and additional transportation or travel charges. Therefore, cost data cannot be reliably compared across different basins and states.

As with many other elements of the ICR, asset sales and trades will complicate the collection of control device cost data. Operators who own assets that have changed hands one or multiple times may not have access to data about what previous operators spent on control technology. Similarly, without proper context around whether a control device was added as a retrofit, repurposed from another facility, or part of new construction, and the approximate date of installation, it is difficult to make any useful conclusions about control cost data.

EPA should also be aware that economic impacts are often considered on a well-by-well basis. A high producing well may withstand a \$25,000 control equipment upgrade cost, while a low producing well may not. In the case of a low producing well, an operator may choose to plug and abandon the well before incurring the additional cost. The point at which a low-producing well becomes uneconomic and must be shut in fluctuates with commodity prices. In the West, many remote areas also have price differentials below benchmark commodity prices because of distance to and lack of access to markets, which further exacerbates the impact on small businesses and Western Energy Alliance members.

g. Pneumatic Controllers

In its current form, the pneumatic controller survey is inappropriately scoped and should be modified. The survey should collect pneumatic controller data on high-bleed, low-bleed, and intermittent-bleed devices only. Identifying pneumatic controllers by EPA's actuation type categories, which may not be readily apparent to field personnel, would be difficult. Rather, companies would have to will undertake in-depth reviews of purchase orders and extensive discussions with equipment suppliers to collect this information, which further adds to the cost burden and feasibility challenges, particularly in light of EPA's unreasonable 120 day timeframe. The request for rotary vane isolation valve actuators, snap-acting vs. throttling intermittent-bleed controllers, and turbine operated isolation valve operators would not meaningfully improve the quality of data collected and is not commensurate with the substantial burden on respondents.

Furthermore, collecting detailed design information for pneumatic controllers will not be useful because their emissions are highly dependent on operational conditions. It would be inappropriate for EPA to use the Part II request to draw industry-wide conclusions about hundreds of thousands of pneumatic controllers. These devices can be purpose-built for individual facilities and actuation rates for one facility's controllers are not necessarily representative of industry operations in general. The variability of the population of pneumatic controllers is further compounded by the fact that they will often actuate at

different rates seasonally. For EPA's purposes, the high, intermittent, and low-bleed classifications will give it sufficient understanding of pneumatic controller populations.

We also suggest EPA simplify the request for instrument air pneumatic, electronic, and mechanical controllers. If facilities are able to use instrument air, they will generally do so for all controllers. Therefore it is unnecessary to gather additional information on actuation rates, snap acting versus throttling controllers, etc. for these devices.

We recommend EPA add a section to the Part II pneumatics section to allow operators the ability to designate whether a pump, valve or controller is controlled by a control device. To be consistent with industry best practices, operators often vent these pneumatics to a control device or re-capture the gas.

Lastly, we support section 3 information collection on work practices and malfunctions, as it will provide EPA with useful context for evaluating work practice standards to ensure the controllers are operating as designed

h. Equipment Leak Information

We are also concerned that EPA has drastically underestimated both the difficulty and the cost of collecting the equipment leak information proposed under Part II of the ICR. As EPA is aware, OOOOa allows operators one year to implement a leak detection and repair (LDAR) program. Yet despite the fact that the proposed equipment leak information collection requirements in the ICR are more complex, including the time-consuming task of supplying actual component counts, EPA is only allowing 120 days for operators to complete this task.

As EPA recognized in OOOOa, individually counting components is a major burden that did not meaningfully affect LDAR benefits. The end result was EPA dropping the provision in the final OOOOa LDAR program. Given EPA's decision in OOOOa, we believe this request is likewise inappropriate for existing source rulemaking. By imposing a substantial new information gathering burden on respondents, EPA is greatly increasing the cost and complexity of the ICR without a correspondent environmental benefit, including possibly hiring and training contractors, and moving expensive optical gas imaging (OGI) equipment to fields where imaging is not currently required, not to mention conducting the actual surveys themselves. Even companies with OGI cameras and trained personnel typically only have a limited number of cameras and technicians available. Completing this ICR will require redeploying that equipment and personnel at a time when companies are already stretched thin to meet OOOOa LDAR requirements. It appears EPA has not accounted for

these costs anywhere in its analysis. We strongly recommend EPA re-evaluate the costs and time burden estimates here and ultimately allow extra time for respondents to complete equipment leak survey work.

In addition, methane capture programs are already currently underway in Colorado, North Dakota, Wyoming, and Utah, including some LDAR requirements. Many companies are still making the equivalency determination on whether their actions under these programs will satisfy OOOOa requirements. Additionally, OOOOa LDAR is currently being phased in, with all facilities needing to be in compliance by June 3, 2017. Therefore, companies are still figuring out how to comply with LDAR requirements for new sources. Asking for LDAR to be done on existing sources simultaneously is extremely burdensome and counterproductive to coming into compliance with OOOOa. We strongly recommend that EPA delay this portion of the ICR until after June 3rd.

We also have concerns with how EPA intends to gather monitoring method information. Under the monitoring method selections, one choice is "Method 21/OVA". This seems to imply these methodologies are equivalent, which is simply not the case. We suggest separating these into two different selections. At some locations operators may perform OVA inspections and not perform Method 21 inspections.

i. *Produced Gas Composition*

EPA includes a request for produced gas composition from three different time periods. In some cases, operators may not have the gas analyses from the periods being requested, particularly for facilities that have been sold one or more times. It is obviously not possible to retroactively collect this information.

In oil plays, operators often do not obtain extended gas analyses, much less for each of the three time periods. If a produced gas analysis is required for other regulating agencies, it is often an analysis that quantifies hydrocarbons containing one to six carbon atoms, and then groups all hydrocarbons with more than six carbon atoms together, which air quality regulating agencies would not allow for estimating emissions.

Operators do not anticipate significant changes in produced gas composition over time. We recommend EPA ask first if an extended gas analysis has been performed from a particular well and if so, then an operator can provide that analysis.

In addition, EPA's gas analysis request includes ethane % by volume. However, Ethane is not considered a VOC. Therefore, we recommend EPA remove the request to produce ethane % by volume from the ICR.

j. *Gas to Oil Ratio*

EPA requests a GOR value from three different time periods. However, a GOR value is often determined during initial flowback and GOR values after that time period may be difficult to verify. As stated earlier, it is not industry practice to measure gas volumes sent to control devices. Without this verified volume, GOR values are calculated. In an oil play, gas is often broken out in a two-phase separator at a high pressure and again in a three-phase separator at a lower pressure. While the majority of the gas breaks out in the two-phase separator, small bumps in pipeline pressures of short duration can cause the gas from the three-phase separator to be directed to the flare. As a result, casinghead gas is directed to both the sales gas line and the flare. In these situations, the flared volume cannot be verified. Operators can look to gas sales data during times when they anticipate that all gas is sold, however, this cannot be verified with absolute certainty. We recommend that EPA designate a method based on technical feasibility for determining GOR after flowback or change the request to indicate an "estimated" GOR value for periods after the first 30 days of production.

k. *Tanks Separators*

The Part II request contains a worksheet titled Tanks Separators. This is a confusing term not used in the oil and gas industry. We ask EPA to clarify if this is referring to separation equipment. This worksheet also contains several requests for information regarding continuous monitoring. EPA should be aware that there will be no gaseous flow rate or liquid feed flow rate monitoring on the inlet to a separator as gas and liquids cannot be individually measured when multiple phases are encountered. Liquid level in a separator vessel also has no bearing on emission estimates, and levels often vary continuously depending on how the equipment functions. We recommend EPA strike the request for flow rate monitoring to separation equipment and the request for liquid levels in a separator because it is irrelevant for the purpose of understanding industry emissions.

l. *Blowdown*

EPA is requesting a variety of information regarding blowdown of equipment in the "Blowdown" worksheet. While most operators will likely certify that blowdowns occurred at some time during 2015, that may be the only information known. We are unaware of any state or federal regulations requiring oil and gas operators to keep records of

blowdown events for the production segment of the oil and natural gas industry or cumulative volumes for oil wells, and operators are unlikely to keep such records. Rather, EPA should ask whether operators keep records of blowdown events for the various equipment types. If the answer is “yes,” then the additionally requested information should switch from black to a cleared cell where the information can be provided.

m. *Control Device*

Part II contains a “Control Device” worksheet with a request for “Typical NG Flow to Device.” EPA should define what “typical” means. We recommend revising this request to average flow rate over the last 30 days. This section also contains a request for the, “Fraction of time control device is operated while NG flow is present,” which is an inappropriate request as operators are not required to continuously monitor the flow of natural gas to a control device in all areas. Given that there are situations where this value may be unknown, we recommend EPA revise the request to “Fraction of time control device is operated and the well is producing.”

5. Definitions

We are concerned by the lack of consistency between both Parts I and II definitions, as well as the inconsistencies with other regulatory text definitions. We suggest the following changes to clarify proposed definitions:

“Storage Tank” and “Vessel” are used interchangeably, which could create confusion. We suggest instead using “Tank” for storage equipment (e.g., storage tank) and “Vessel” reserved for process equipment (e.g., separator).

The definition of “Crude Oil” includes the term “drip gases.” We ask that EPA clarify whether drip gas is a reference to condensate. If so, it should be removed from the crude oil definition, as condensate is defined separately.

The current definition of “Facility” is unclear and could be a source of confusion for locations that have physically co-located but functionally unrelated equipment, or locations that with functionally related equipment located off-site. For instance, if an operator has a compressor for boosting pipeline pressure and a tank battery on the same location that does not sell to the pipeline, it is unclear if EPA would consider this one or two distinct locations.

It is unclear if “Gas-to-Oil Ratio” (GOR) is the same GOR that an operator would obtain from a flash analysis after a separator. We suggest EPA clarify this definition to “the ratio

of the amount of hydrocarbon gas that is generated by the decrease in pressure or increase in temperature to standard conditions to the amount of hydrocarbon liquid that remains after the gas has been liberated” which more accurately describes the necessary change in pressure and temperature.

“API Well ID” and “US Well ID” are listed twice, despite seemingly being the same thing. We suggest EPA combine these definitions to avoid confusion.

“Separator” should clarify whether it includes gunbarrel tanks since their primary purpose is to separate water from oil and not gas from liquids.

“Heater Treater” definition should be changed to read “Process Vessel” instead of “Storage Vessel” as heater treaters are not storage vessels.

“Oil Well/Oil Reservoir” and “Gas Well/Gas Reservoir” definitions in their current forms will create confusion and should instead be amended to match state or land agency definitions. EPA has added a gas to oil production threshold of 100,000 scf/bbl to determine reservoir status. However, it does not appear to apply the definition anywhere in the workbook. The closest question about a well or reservoir type is the “Sub-basin Formation Type” question on the “well sites” tab in Part II of the request. Even then, the responses are from Subpart W definitions, which include values of oil, high permeability gas, shale gas, coal seam, and other tight reservoir rock. Having EPA define a term regulated by another authority could create confusion and lead to mismatched regulatory filings and air registrations. If EPA does decide to keep the definition, we suggest it condense the “Gas Well” and “Oil Well” into “Well Type” and define it as, “The type of well as defined or registered with the respective state or land agency.” The gas to oil production threshold used in both well and reservoir definitions will not be indicative of the well type, as it could be affected by a variety of factors like gas pockets in an oil reservoir. Further confusing matters, different states have different thresholds when assigning well types. For example, Oklahoma sets the threshold at 150,000 scf/bbl and Louisiana sets the threshold at 2,000 scf/bbl.

“Pressure Vessels” should be defined as any vessel that operates under pressure and not atmospheric pressure, rather than the currently stated 30 psig threshold which appears to be an arbitrary distinction that would create confusion.

6. Recipients

EPA appears to contemplate collecting information on wells from both owners and operators in connection with the Part II survey. Normally, multiple working-interest and non-operating interest owners own any given well, with one primary operator.

Accordingly, requiring both operators and owners to report on the Part II survey could result in numerous filings of duplicate information on each well which would make the data confusing and difficult to aggregate. The duplication would also require EPA to expend more time to process and evaluate the data accurately and would result in unnecessary burdens on the non-operators. The only sensible way to collect the information is to require the operator for each well, as designated and registered by each state oil and gas commission, to report on behalf of all of the owners of the well. EPA should clarify that any party receiving either part is only required to respond and provide information for wells where it is the operator.

In addition, the estimate in the Supporting Statement that each operator would only be required to report on approximately 30 facilities or 60 wells for Part I is erroneous. Many oil and natural gas companies operate hundreds and even thousands of wells. In BLM's recently proposed venting and flaring rule, it treats operators with under 500 wells as small entities. BLM's definition of a small operator being an order of magnitude larger than EPA's estimated average respondent indicates that EPA does not have an accurate understanding of the magnitude of the Part I ICR burden. The obligation to simultaneously respond to the Part II survey for these companies will be extremely expensive and require huge amounts of time. EPA must consider that burden and provide adequate additional time for recipients operating more than 500 facilities to provide the response to the ICR.

Part II of the ICR will be a significant burden for any operator that receives a request, yet EPA has not taken into consideration the fact that companies may receive multiple Part II requests. We strongly recommend EPA develop a methodology to avoid disproportionately burdening a particular operator with an overwhelming number of requests.

Similarly, operators who have received Clean Air Act Section 114 requests for information on facility operations and emissions data in North Dakota and elsewhere should be exempted from Part II of the ICR. The benefits of this would be two-fold. First, these Section 114 requests are extremely costly and burdensome and have overloaded resources at affected companies, and adding a Part II request on top of that would be needlessly burdensome. Second, since these companies have provided voluminous emission and facility data to EPA already, the Part II request would be of limited utility since EPA already has much of these data. Both industry and EPA would benefit from not needlessly duplicating work.

Additionally, we are concerned about how EPA will obtain contact information for operators. It is critical that the surveys are directed to individuals in the appropriate role at

each company to avoid losing time. EPA should include a way for companies to provide it with their preferred contact before the surveys are distributed.

We also recommend that EPA avoid oversaturating a particular region with requests which could lead to a flawed understanding of industry operations and economics. For example, the Denver Julesburg Basin in northeastern Colorado has easily accessible infrastructure and a large workforce. It is also located in the Northern Front Range Nonattainment Area, which is subject to more stringent VOC emission controls than an area without similar ozone issues. Heavily surveying this basin would not be an accurate representation of oil and natural gas development throughout the West or even throughout Colorado.

We encourage EPA to fully account for both geography and production type in the Part II survey selection. Although EPA is proposing two options, we believe there is a third option. Rather than guessing at what might be representative based on GOR or basin, we recommend that EPA base its selections on the Part I ICR responses. By analyzing that information, EPA will have a much better understanding of how to target Part II requests. It strikes us as a missed opportunity for EPA not to leverage the valuable information it is collecting under Part I, and is another reason the Part II data collection should occur after and not simultaneous with Part I.

EPA must also consider the fact that in ozone nonattainment areas states have been regulating existing sources for years and in many cases, through multiple State Implementation Plan (SIP) process rulemakings. Existing source controls in ozone nonattainment areas will not give EPA an accurate picture of reasonable control requirements for areas that are in attainment of federal air quality standards. Including nonattainment areas in the ICR will skew its results and inaccurately portray what is reasonable and feasible nationwide. Furthermore, if EPA moves forward with releasing final Control Techniques Guidelines, it should have a clear understanding of what existing source control requirements will be in ozone nonattainment areas. Since EPA both sets the guidelines and approves all SIPs, it is unreasonably burdensome to demand emission control information from industry that EPA already has at its disposal. We therefore recommend that EPA limit its request to areas designated in attainment or unclassifiable under the current Ozone National Ambient Air Quality Standard. This will facilitate EPA avoiding duplicative or confusing requirements for existing sources in nonattainment areas that are already regulated by states.

7. Efficiency

As EPA develops the ICR and contemplates existing source rules, we urge it to consider the wealth of information already at its disposal which can likely mitigate the need for many of the requirements of the ICR. Sources of this information include:

- In-house EPA knowledge outside the refining and chemicals group, such as upstream enforcement, regional offices, and upstream OAQPS.
- EPA White papers and comments, particularly on liquids unloading and pneumatic devices. These comments should help EPA determine areas where its requests could be better framed.
- Industry comments on current and pending regulation, including:
 - NSPS OOOO and OOOOa for technical feasibility of controls and the burdens of overly prescriptive regulations
 - Control Techniques Guidelines for the unique challenges facing regulation of existing sources
 - BLM's proposed Venting and Flaring rule for additional concerns about the regulation of existing sources, the burden of duplicative regulation, and technical feasibility concerns
 - The State of Colorado's Regulation 7 and the Wyoming Department of Environmental Quality's Existing Source Rule for the technical and economic challenges of implementing LDAR programs
 - WY State Rules for cost-effectiveness of existing source regulation
- EPA's own voluntary programs.

Many of these data sources could be particularly useful about actual emissions and the importance of particular sources. For example, if an operator has reporting requirements under a Title V permit, then EPA may not need equipment counts to determine emissions. Taking advantage of these data sources would fulfill statutory requirements to reduce

regulatory burden on respondents without compromising data quality.

8. Conclusion

We appreciate the opportunity to comment. EPA should significantly modify the ICR to focus on relevant information that will enhance EPA's understanding of the oil and natural gas industry while removing extraneous or improperly focused requests that have little to no bearing on estimating emissions and crafting appropriate regulation. Furthermore, EPA should not initiate Part II information collection until it has comprehensively analyzed Part I responses. EPA should select Part II recipients based on data received from Part I to ensure the Part II effort represents a cross-section of the oil and natural gas industry. Finally, EPA should contemplate existing source regulations through a white paper process based on ICR data that allows for industry and stakeholder review.

We are available to work with EPA to reduce the burden on both EPA and industry respondents, provide EPA with more useful emissions data, and eliminate extraneous information collection requirements. Please feel free to contact me to discuss these issues in greater detail.

Sincerely,



Kathleen Sgamma
Vice President of Public & Government Affairs