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December 4, 2015

Filed Via: www.regulations.gov

Public Comments Processing
United States Environmental Protection Agency
Office of Air Quality Planning and Standards
Research Triangle Park, NC 27711

Re: TIPRO's Combined Comments on Three Regulatory Proposals:

1) **Oil and Natural Gas Sector: Emission Standards for New and Modified Sources (Docket ID Number EPA–HQ–OAR–2010–0505; 80 Fed. Reg. 56,593)**
2) **Source Determination for Certain Emission Units in the Oil and Natural Gas Sector (Docket ID Number EPA-HQ-OAR-2013-0685; 80 Fed. Reg. 56,579)**
3) **Draft Control Technique Guidelines for the Oil and Natural Gas Industry (Docket ID Number EPA-HQ-OAR-2015-0216; 80 Fed. Reg. 56,557)**

A. About TIPRO and the Texas Oil & Gas Industry

Founded in 1946, the Texas Independent Producers and Royalty Owners Association ("TIPRO") is one of the oldest and largest oil and natural gas industry advocacy non-profits in Texas. TIPRO's more than 3,000 members include small family owned companies, the largest publicly traded independents, and large and small mineral estates and trusts. TIPRO provided oral testimony during EPA's public hearing on September 23, 2015 in Dallas, Texas.

The Texas oil and gas industry supports more than 400,000 direct jobs and 40% of the state economy. Between 2009-2014, direct oil and gas employment in the state increased by more than 124,000 jobs. Some of these sectors have a multiplier effect as high as 17 times for each oil and gas job created, not to mention an estimated 2.5 million royalty owners currently in the state that benefit from Texas oil and gas production.

Despite ongoing volatility in commodity prices, the oil and natural gas industry remains a key driver for the Texas and the US economy. These proposed rules will place unnecessary burdens on a sector that is already struggling, and could actually slow progress on reducing methane emissions by adding yet another layer of requirements.

With that background in mind, TIPRO appreciates the opportunity to provide written comments regarding EPA's proposed rules.

B. General Comments

According to EPA data, methane emissions from oil and natural gas production represent a diminutive 1.07% of its own Greenhouse Gas Inventory. Emissions from oil and natural gas development have fallen 35% since 2007, even as natural gas production increased by 22%. EPA data also shows methane emissions from hydraulically fractured gas wells fell 73% between 2011 and 2013. Total methane emissions from production, processing and transmission have already fallen from 170 million metric tons in 1990 to 148 million metric tons in 2013. *See* Table 3(a), 80 Fed. Reg. 56607.

As EPA notes in section VI.A.4.a, methane emissions result primarily from field production operations. *Id.* New domestic drilling activity in the United States has decreased more than 50% this year due to continued volatility in commodity prices. Despite the downturn in exploration and production activity, and clear decline in methane emissions from industry operations, EPA projects—without explaining the basis—an increase in emissions from the oil and natural gas sector of 25% over the next decade. EPA's flawed assumptions and projections call into question the necessity of the proposed rules, along with their ultimate validity and enforceability.

Finally, it is important to keep in mind that oil and natural gas producers already have a significant incentive to prevent methane emissions. Methane is a valuable commodity that, when not lost to the atmosphere, generates revenue.

C. EPA Should Delay Implementation and Seek More Input

Based on the high number of impractical requirements contained in the draft rules, along with the significant impact these regulations will have on the nation's economy and the industry as a whole, it is apparent that more time for thoughtful discussion and deliberation would be appropriate. EPA has not considered enough industry input, because the practical day-to-day operational aspects of the regulated community seem to have been ignored.

In order to effectively and efficiently regulate the industry, EPA must first understand the "nuts and bolts" of the industry. This knowledge should include how industry participants make business decisions, including: when it makes sense to risk capital to acquire new assets or drill new wells, how depletion of the non-renewable resources being developed might impact the bottom line (and long term viability of the endeavor) far into the future, how to best move products to market, when to purchase new equipment and hire new employees as opposed to leasing equipment and hiring independent contractors, etc. Every aspect of the industry is potentially affected by these new rules, and a fundamental understanding of the basic drivers of the economic engine that is the oil and gas industry appears to be woefully absent.

D. Marginal Well Exclusion – Clarify to Exclude Declining Producers

One example of the practical concerns cited above is in the exclusion for marginal wells. The Control Technique Guidelines ("CTG") rules require utilization of Reasonably Available Control Technology ("RACT"), which by codified definition in the Clean Air Act must take into account

both technological and economic feasibility. And, even though approximately 75% of the oil and natural gas wells in the U.S. are considered "marginal wells" or "low production well sites" that do not produce large volumes of hydrocarbons (averaging less than 15 boepd, per EPA guidance), the operational distinctions between marginal wells and larger producers isn't appropriately dealt with.

As EPA has acknowledged, production rates are a direct result of reservoir pressure and reservoir pressure influences emissions. In that way, a marginal well will typically have correspondingly marginal emissions. Pressure and production decline over time, such that a significant portion of marginal wells were at one time better producers. Appropriately, EPA contemplates excluding marginal wells from the new source requirements, but only if they produce at a marginal rate of less than 15 boepd during the first 30 days of production. 80 Fed. Reg. 56639, 56663; § 60.5365a(i)(1).

Yet, it is not uncommon for a well to produce above the 15 boepd threshold early in its life and then drop below it. The same logic with respect to fugitive emissions being tied to production applies at every point during a well's lifespan, not just during the first thirty days. Therefore, EPA should clarify that once production drops below the threshold to become a "low production site" that it is no longer subject to the requirements.

Uniquely, emissions from upstream oil and gas sources decline over time. EPA regulations that purport to be tailored to the industry should recognize that fact and adhere to a scheme that focuses resources where they can have an impact. Requiring emissions controls for existing marginal wells, or for new wells that later become marginal, is a monumental waste of agency resources and an unnecessary burden on producers. Many of the proposed requirements for existing marginal wells and newer wells that have dropped below the marginal well threshold are a monumental waste of resources for the agency and an unnecessary burden on the industry. Any scheme that regulates them distracts from areas where a real impact can be made.

Finally, given the relatively low revenue that marginal wells generate, it goes without saying that those wells are the most susceptible to becoming unprofitable if another layer of regulation is imposed. Considering the minimal amount of emissions they represent and the lack of tangible benefit of regulation, this result would inflict unnecessary harm on many small businesses along with royalty owners.

E. EPA Should Not Regulate Existing Sources

TIPRO echoes concerns voiced by other industry organizations and companies that the draft rules could have the effect of regulating existing sources. Oil and natural gas production operations are unique in that after the period of initial production, wells begin to decline. As the production of the well declines, its ability to emit VOCs and methane into the atmosphere also decreases. Emissions from these wells will be a smaller portion of the already very small percentage of upstream oil and natural gas GHG emissions, yet EPA's decision to regulate methane directly under Section 111(b) of the Clean Air Act (CAA) potentially subjects tens of thousands of existing wells to regulation. Further, the regulatory burden on state and federal regulators of exposing

thousands of existing sources to new regulation would be immense. The manpower from both industry and regulators and the associated economic burden will far outweigh any perceived environmental benefit.

F. EPA Should Develop *De Minimis* Exemption for Small Producers

Production patterns for individual wells are susceptible to unanticipated fluctuations over time. Some companies focus on development of marginal fields and stripper wells, and thus going forward may not be well versed in complying with EPA regulations for larger producing wells. In order to avoid unnecessary administrative expense and hassle, EPA should develop an exclusion for small operators whose average well produces less than 15 boepd. In the private sector, this would provide producers with predictability and aid in simplifying due diligence for asset purchases. On the agency side, this exemption would enable EPA and state regulators to focus their scarce resources where they will be most effective.

But the bottom line, as EPA has acknowledged, is that small operators whose success depends on an accumulation of low profit-margin wells are very vulnerable to unintended financial burdens imposed by the new regulations. Independent producers develop 90 percent of the wells in the United States – producing 54 percent of America's oil and 85 percent of America's natural gas. These companies produce 4 percent of the United States' Gross Domestic Product and reinvest billions of dollars back into the American economy. Many, if not most, of those operators are small, privately owned family businesses in which every dollar is important. Since EPA has acknowledged that marginal wells are not a significant source of emissions, every effort should be made to not impose additional economic burdens on those companies.

G. EPA Should Defer to State Regulators

Texans trust the agencies that regulate the oil and gas industry and the environment. The three Commissioners of the Texas Railroad Commission (which regulates oil and gas production and transportation) are elected in statewide races to fill their positions. If the public feels unduly harmed by a lack of proper oversight, they have the power to make change. The three commissioners of the Texas Commission on Environmental Quality are appointed by the Governor, and are therefore similarly subject to election results.

Regulatory oversight of local activities should be handled, when possible, by local regulators. The Clean Air Act was designed with that goal in mind, giving states flexibility on how to achieve larger air quality goals. In this situation, Texans in particular are impacted by the success or failure of the oil and gas industry more than the citizens of any other state. Therefore, it should be up to them and state regulators to decide how to prioritize emissions amongst different industries in order to achieve air quality goals. A blanket federal program regulating the oil and gas industry might have a minimal impact on the economies of other states, but in Texas the industry's importance to our economy exacerbates the impact.

Further, compliance with dual regulatory programs handed down by different state and federal agencies only serves to increase the burden on small business with little environmental benefit.

H. EPA Should Strive For More Flexibility

As a general comment on the draft rules as a whole, and the regulatory scheme those rules intend to implement, TIPRO would strongly suggest that members of the regulated community be afforded as much flexibility in achieving compliance as possible. Rules should not dictate that a particular technology be used in compliance programs without leaving room for the possibility that better alternatives could be developed in the future. Our industry is a leading innovator of new technology and conducts more research and development than most of the other industries in the country. New methods and technologies are constantly being tested, improved, and used by operators to drive down cost and improve production and greater efficiency in the E&P process. Their drive to innovate is inherent—it comes naturally—driven primarily by the need for efficiency, better safety measures and ultimately cost savings. Each of those drivers provides an incentive for upstream operators to minimize methane emissions, and when the inevitable time comes that better compliance monitoring technology is developed operators should be free to utilize it.

As a specific example, and as explained in more detail below, the leak detection and reporting requirements ("LDAR") in the draft rules require use of optical gas imaging ("OGI") before a leaking component can be considered repaired. *See e.g.* § 60.5397a. Yet, many other methods exist currently, and it is likely that better methods will be developed in the future. Therefore, TIPRO recommends that EPA revise the rules to allow for use of an equivalent or better method in situations like this.

When appropriate, EPA could write the rules in a way that requires advance approval before utilization of new technology. The scope of that approval could be based on the user (operator or service provider, company-wide), the geographic area (resource play-wide or statewide), or even on a case by case basis.

But regardless of the mechanism used to effectuate the goal, EPA should build in more flexibility for companies in this innovative industry to improve and use better technology without the necessity of additional rulemaking. It simply makes sense to allow the industry to follow its natural tendency to innovate.

I. Specific Comments on Fugitive Emissions at Well Sites and Compressor Stations

1. *EPA's Proposed Compliance Timeframes are Too Short*

The industry currently relies on audio, visual and olfactory ("AVO") inspections and only recently began exploring advanced leak detection technologies. Therefore, we believe the proposed regulations for methane and VOCs do not provide companies with a sufficient timeframe to achieve compliance. To satisfy the EPA's proposed LDAR requirements, EPA should allow companies more time for planning and implementation beyond the proposed period.

Further, EPA should increase the initial survey timeframe requirement to 90 days and the repairs requirement to at least 30 days, instead of the insufficient and unworkable timeframe of 30 and 15

days. At a minimum, EPA should provide for a mechanism to allow a "variance" or hardship extension of the time frames when extenuating circumstances are present.

2. *EPA Should Allow Alternatives to OGI for Leak Detection*

The industry should have the freedom to choose a different leak detection technology besides optical gas imaging (OGI). The EPA rule mandating a specific technology or provider would have the effect of stifling competition and innovation. Several other technologies/systems are available or in development, in addition to OGI, including tunable diode laser absorption spectroscopy; 3-channel non-dispersive gas correlation infrared spectrometer; mid-infrared laser-based differential absorption light detection and ranging; simultaneous-view gas correlation passive infrared radiometer; acoustic gas lead detectors; and remote methane leak detectors.

OGI technology has significant limitations. Among them, it can be explosive if improperly used, photos can be difficult to interpret (*e.g.* a heat plume can be mistaken for a leak), and it can be prohibitively expensive for smaller companies and impractical for larger companies with diverse geographic locations. Further, some OGI pictures lack GPS coordinates (a proposed EPA requirement) and the technology lacks the ability to measure the amount of an emissions event.

3. *LDAR program should maintain consistency and minimize duplicity with current individual state programs*

Current state LDAR programs focus on reducing fugitive emissions at a few high magnitude emission sources because data and studies indicate a large majority of total methane and VOC emissions stem from these high magnitude sources ("fat tails"). The experience gained from fat tail focused LDAR programs indicates effective management of fugitive emissions. Following the initial survey, monitoring frequencies more often than annual are unjustified and simply not necessary.

4. *Impractical to Quantify Methane "Saved"*

The innate characteristics of fugitive emissions makes it impractical and costly to quantify the amount "saved." In fact, recognizing the futility and lack of tangible benefit, the most aggressive state LDAR programs already in existence do not attempt to require quantification of the amount saved. The quantity of components at a facility subject to monitoring likely reach into the thousands or tens of thousands. Therefore, quantifying the amount of fugitive emissions saved at each component would be cost prohibitive.

5. *LDAR survey program should not be based on component count or percentage of components leaking program*

EPA's current proposal incorrectly bases its LDAR survey program on an arbitrary component count or percentage of components leaking methodology to incentivize a company's vigilance in leak identification and repair. Companies with a high number of components—sometimes in the thousands or tens of thousands—would face prohibitive costs in monitoring and maintaining

records under a component count LDAR survey program. Additional unforeseen and unaccounted for costs exist as well, including those related to training, data management, and set-up. Finally, all components are not equal. Experience in states with strict LDAR programs indicates that treating every component as equal is ineffective in a survey or monitoring program.

6. *Compressors- The EPA Should Clarify the Controlled Technique Guideline Excluding Compressors at the Well*

TIPRO suggests the EPA should clarify the controlled technique guidelines (CTG) to exclude compressors at the well site since they are not subject to Subpart OOOO or the proposed Subpart OOOOa. Additionally, TIPRO suggests the fugitive emissions requirements at compressor stations should only apply to the fugitive sources connected to the added or modified compressor.

7. *Liquids Unloading – TIPRO Supports the EPA's Current Standard for Liquids Unloading Emissions*

TIPRO supports the EPA's continued refrain from proposing federal standards regulating liquids unloading emissions. Liquids loading emissions vary amongst well types and regions. It is the inability to generalize that makes each well unique and requires a case-by-case analysis to address a liquid loading problem. For example, a well's initial release of gas ceases when liquids travel up the well bore. This cessation occurs varyingly from a few minutes to several hours. Formulas intended to estimate emissions during well activity are inaccurate because of its failure to take into account the cessation of venting during production. Additionally, regional factors in VOC and methane emissions further detract from a national, one-size-fits-all regulation on liquids unloading emissions. These factors include temperature, pressure, hydrocarbon composition of the oil and gas within the production formation, gas to liquid ratio, well configuration, well depth and surface conditions at the time of the unloading event. The factors affecting the frequency and duration of liquids unloading include the well solution and design. Predicting the ability to minimize venting is largely difficult because of the variation between wells.

Motivated by strong economic incentives, operators currently capture as much of the gas as possible. Unfortunately, it is not always possible to unload without venting for safety, technological and well-specific reasons.

TIPRO continues to support the EPA's stance on avoiding blanket, federal standards for liquids unloading emissions.

J. Oil Well Reduced Emission Completions

As IPAA/AXPC notes in its comments, EPA incorrectly assumes that reduced emission completions on oil wells are the same as reduced emission completions on natural gas wells. Unlike natural gas wells, some oil wells lack clear initial and separation flowback stages. Oil well reduced emission completions (REC) should consider the availability of a gathering line to determine the feasibility of an oil well completion.

Further, implementing REC or combustion devices/flares at oil wells is redundant and unnecessary because operators already engage in such practices at a majority of wells. EPA should avoid implementing a blanket, national per well standard on methane and VOC emissions due to variations between well types and wells in different regions. Wells producing both oil and gas further support the need to avoid a national, blanket emissions standard because many of these wells already utilize REC or combustion devices.

K. Pneumatic Pumps

EPA's proposal to require pneumatic pumps fails to consider the true difficulty and cost of transferring captured gas to an existing combustion device. Pneumatic pumps lack cost efficiency when considering the relatively small volume of gas captured.

There are also safety and design concerns with the proposed pneumatic pump requirements. The costs associated with implementing a closed vent system upgrade capable of reducing the risks are exorbitant to the point of being prohibitive.

L. Conclusion

TIPRO sincerely appreciates the opportunity to submit these public comments on the proposed rules. I invite EPA to contact me with questions or to arrange a meeting to discuss any of the above comments, and I would welcome the opportunity to put together a group of affected stakeholders that could provide EPA with further valuable input. Please do not hesitate to contact me at the address shown in the letterhead, or by e-mail at elonganecker@tipro.org.

Thank you for your time and attention.

Sincerely,

Ed Longanecker
President
TIPRO