

January 15, 2025

Program Supervisor, MC 205
Texas Register/Rule Development Team - Office of Legal Services
Texas Commission on Environmental Quality
P.O. Box 13087 Austin, Texas 78711-3087

Dear TCEQ Program Supervisor:

The Texas Alliance of Energy Producers (TAEP) appreciates the opportunity to comment on the development of a TCEQ state plan for the implementation of the EPA's recently adopted 0000c rulemaking.

The TAEP is a statewide oil and gas trade association representing the upstream (exploration and production) segment of the industry. Over 2,500 strong, our members include operating and producing companies, drilling companies, oilfield service companies, and companies and individuals from a host of affiliated industries. Our member companies account for most of the crude oil and natural gas production in Texas.

As you know, Texas is easily the largest producing state in the country, with the highest number of wells and the greatest volumes of production. Presently, Texas contributes about 43% of the nation's total crude oil production, and 28% of total U.S. natural gas production. The companies producing our state's crude oil and natural gas come in all shapes and sizes from the major integrated oil and gas companies to large publicly traded independents, to larger private independents, to smaller private independents, some of which are very small indeed.

While we proudly represent most of the state's largest and most prominent oil and gas companies, our legacy historically has been advocacy for and protection of the state's independent oil and gas companies, and smaller private independent companies in particular. It is this class of company put at greatest risk of the imposition of additional costs, never mind normal market circumstances and a pervasive trend of consolidation over time.

We are fortunate to be producing record volumes of crude oil and natural gas in Texas and the U.S. But the makeup of that production also matters. It is clear from the data that the largest companies are producing 70% or more of statewide crude oil and natural gas production in Texas. The rest is divided up among a sizable number of smaller companies. There are a number of newer, very large wells in the state, and the volumes of production per well decline steadily, and in fact, actual stripper well production in Texas may account for only about 10% of total statewide production.

That 10% of production is not insignificant, however, and the U.S. can scarcely afford to be removing any significant volume of production from the marketplace. That production will be replaced by other sources, causing both environmental and economic damage in the process.

Moreover, that 10% of production comes from over 80% of the wells, and that is a fact that simply cannot be ignored or set aside. The state of Texas has an extraordinary interest in maintaining this landscape of oil and gas production, and in allowing markets to be the principal driver of trends and trend changes moving forward, as opposed to costly regulation that artificially and unnecessarily puts wells and companies out of business, especially with little in the way of actual emissions reductions or environmental benefit otherwise.

At least for now, there is a place for every one of these companies and the wells they operate. We know this because there is a market for every barrel of crude oil and every mcf of natural gas that comes out of the ground. And at least for now, these wells remain "economic" – the production revenue pays the bills and returns at least a "normal profit" for the owners and operators. ("Normal" profits in economic terms are that level of revenue over expense necessary to sustain ongoing operation.) If that were not the case, the wells would not still be operating.

That means there is a demand for these products. Again, we know this because every barrel and mcf can be sold in the marketplace. We are ever mindful of regulatory measures and other actions of government that may have the effect of reducing supply, especially in the face of stable or growing demand. To constrict U.S. supply, or U.S. supply growth absent a corresponding constriction of demand simply means that demand will be met from other sources. Most often those sources will be countries that produce petroleum products in much less clean fashion than the U.S., and with higher levels of emissions.

To lower U.S. supply by putting wells out of commission is counterproductive in virtually every respect. It raises prices for consumers, and makes energy less abundant, affordable, and reliable. It also raises rather than lowers global emissions, and results in decreased economic activity in U.S. producing states and regions.

The existing source (0000c) emissions guidelines adopted and published last year by the U.S. Environmental Protection Agency (EPA) will, without question, raise costs significantly to U.S. and Texas oil and gas operators, putting a wide swath of wells and companies at risk. That, in turn, will jeopardize a significant amount of U.S. and Texas production.

The harm that stands to be imposed on the industry in Texas is major, not minor, and with negligible benefit in terms of emissions reduction. The adoption of the rule by EPA seems to ignore two central facts: (1) methane emissions from oil and gas operations in the U.S. have been steadily declining over time, not increasing, and (2) other large methane emitting industries were left untouched by EPA, suggesting that the U.S. domestic oil and gas industry was singled out and targeted for damaging regulation.

The costs of compliance with the rule as adopted are high, especially when considering the makeup of the industry and the well inventory in Texas. Simply put, most of the wells in the U.S. and Texas are "low volume" wells, producing relatively little individually on a daily basis in terms of both crude oil and natural gas.

Rough estimates by the Alliance suggest the imposition of these guidelines as adopted would result in the loss of over 63,000 wells in the state. These facilities make up the very fabric of the industry in Texas

in all parts of the state – north, south, east, west, and all points in between. The elimination of these wells as a result of the compliance costs of 0000c as adopted would, without question, cause great and irreparable economic upheaval and damage.

And this is simply because of the math – most of the wells are low volume, and most of those are on the lower end of the low volume spectrum. They are economic (profitable) under current market and regulatory circumstances but simply do not provide the production revenue sufficient to absorb these costs. In other words, the imposition of emissions guidelines as adopted by EPA turns wells from economic to uneconomic, and companies simply will not continue to operate them.

Marginal/Low Volume Wells

Of the regulated facilities that will come under the 0000c regime, low-volume wells (and the companies that operate them) are in significant jeopardy simply because, again, the production revenue may not support the additional costs of compliance with the rule. These calculations can obviously change based on prices for crude oil and natural gas, but the fact remains that the imposition of significant costs on the operation of these wells could very easily make them uneconomic from one day to the next. That is likely to be the case with a large number of them.

Some of the EPA's own data would appear to support this conclusion. For example, the data utilized on attachment 18 at EPA-HQ-OAD-2021-0317-3989 assumes operating costs for a flare as \$66,822/yr. A site that produced 2 BOE/day would yield approximately \$31,938/year in gross revenue based on EPA's analysis. Even if this site generated immeasurable amounts of natural gas, a flare would be required, making the well uneconomical.

At last assessment, of the 254 counties in the state of Texas, some measurable, reportable volume of crude oil and/or natural gas is produced in nearly 85% of those. Of the 159,727 actively producing oil wells (the Texas Railroad Commission count as of November 2024) 102,818 are producing less than 10 barrels per day. Of the 82,958 active gas wells, 65,067 are producing less than 250 mcf per day. Of these, a significant number are producing well below those 10 barrels a day, with a great many averaging 1-2 BOE/day across an entire operation or facility. And the same is true of the gas wells — most in that category are nowhere near 250 mcf/day.

Stripper wells for federal tax purposes are defined as 15 barrels/day or less for crude oil wells, and 90 mcf/day or less for natural gas wells. The majority of wells in Texas fall into these categories. They are literally virtually everywhere across the state; and, while there may not necessarily be much in the way of new drilling in many of these areas, keeping the wells active and producing provides a lot in the way of beneficial economic activity.

For each and every one of these wells, such beneficial activity comes in the form of royalty payments, working interest payments, employment, both in the form of company employees and contractors, ad valorem taxes paid to local school districts and municipalities, and production (severance) taxes paid to the state of Texas. The source of all of these payments is production revenue, and the wiggle room to absorb the significant costs of compliance with the EPA's 0000c rule as adopted simply does not exist, especially if a normal profit sufficient to keep those facilities operating is considered.

RULOF as a Potential Exception Mechanism

In the regulatory landscape the RULOF exception seems to have historically been applied to a small number of very large facilities, as opposed to a large number of very small facilities. That presents challenges in determining how it might be applied to tens of thousands of crude oil and natural gas facilities in Texas and hundreds of thousands in the U.S. We would suggest potentially categorizing facilities, and then establishing and applying RULOF exception mechanisms to those categories.

These wells were not originally drilled to produce low volumes of crude oil and natural gas. They came on much stronger and gradually declined to these low levels of production over a long period of time. They are, then, definitionally in the "final stages" of their useful life, no matter how long that may last (and that varies greatly based on any number of factors – geography, geology, technology, market economics, and so on). Companies and operators make individual determinations as to when a well has reached the end of its useful life. At present, clearly the active wells remain economic, or they would be shut down. However, that does not change where they are in the overall life cycle of those wells, which again is in the latter stage of their useful life.

In our view, any model for creating categorical exceptions under RULOF must be focused on volumetric considerations as opposed to other factors (component counts, for example). Our suggestion is to create a low volume well RULOF exception structure that would allow the bulk of these wells to continue to operate. Because it already exists in federal law, we would suggest the federal definitions for stripper wells as the structure – wells or operations producing 15 barrels a day of less of crude oil, and 90 mcf per day of natural gas, as a potential category of exception under RULOF. Our further suggestion would be to create a specific exemption for that category of wells from the 0000c regulatory regime simply so that costs are not imposed that would jeopardize their continued operation until they have truly reached the end of their useful economic life. To do so would be to maintain the fabric and ecosystem of oil and gas production in Texas, do no economic harm, and still capture 80-90 percent of the production in Texas.

Categories could also be created within that range of up to 15 barrels/day for crude oil and 90 mcf/day for natural gas (or a "barrels of oil equivalent, or boe, of 15 barrels per day or less). Again, most of the stripper wells produce actual volumes that are significantly lower. If any (or all) of the wells should remain subject to the rule, other methods of compliance could be imposed that are low enough in cost so as not to jeopardize the continued operation of those wells.

The following tables, from 2023, show the distribution of production in the state's stripper well inventory:

Crude Oil Wells

- 35 percent in the 0-1 boe/day,
- 11 percent in 1-2 boe/day,
- 11 percent in 2-4 boe/day,
- 6 percent in 4-6 boe/day,
- 4 percent in 6-8 boe/day,
- 3 percent in 8-10 boe/day,
- 2 percent in 10-12 boe/day, and
- 3 percent in 12-15 boe/day.

In terms of actual numbers of wells, there were 120,879 crude oil wells producing 15 boe/day or less. Over 101,000 were producing 6 boe/day or less. An astounding 56,700 wells were producing 0-1 boe/day.

There were 80,615 natural gas wells producing 15 boe/day or less, including 57,819 at 6 boe/day or less.

Natural Gas Wells

- 18 percent in the 0-1 boe/day,
- 12 percent in 1-2 boe/day,
- 10 percent in 2-4 boe/day,
- 8 percent in 4-6 boe/day,
- 6 percent in 6-8 boe/day,
- 5 percent in 8-10 boe/day,
- 4 percent in 10-12 boe/day, and
- 5 percent in 12-15 boe/day.

These distribution tables suggest that most of the stripper wells are in the 0-6 boe/day range, and the burden of compliance will weigh the heaviest on them. Wells decline quickly from 15 boe/day to 10 boe/day but can remain in the 0-2 boe/day range for an extended period of time.

A classification distinction would also likely need to be made between gas wells, and crude oil wells that also produce low volumes of associated gas. For the latter, EPA has in fact proposed two volumetric categories of existing oil wells with associated gas. For those wells with more than 40 tons per year of methane, associated gas is to be routed to a sales line, utilized for another useful purpose, or routed to a flare if an annual engineer-certification demonstrates that other options are technically infeasible. For those wells with less than 40 tpy of methane, the same options are applied except that flaring is allowed without the technical infeasibility demonstration. However, even if an operator is authorized to flare, an extensive closed vent system ("CVS") and control device are required for such a site. For low producing wells that do not generate high levels of cash flow, these costs could very well make such locations uneconomic, resulting either in plugged wells and lost production or, even worse, abandoned wells.

In reaching the conclusions on differentiating the classes of associated gas wells, EPA's cost spreadsheet utilized venting and flaring data reported under 40 CFR 98, Subpart W data for 2019. Smaller marginal oil well operators do not report under Subpart W and therefore the cost analysis conducted by EPA is biased towards larger operators and newer production. Further, because of the data set used, EPA performed no analysis of the actual cost-to-benefit for marginal well operators, because marginal well data was not available through Subpart W reporting. Since marginal wells with legacy production often have low gas flows, there is little to no gas to capture. Further, that gas may not be of sufficient "quality" to be of value to a gas purchaser, and the processing costs do not warrant taking the gas, never mind the very low volumes, perhaps at relatively low natural gas prices (as has been the case for much of the last two years).

Since the cost effectiveness calculations ignore wells that produce minimal volumes of associated gas, TCEQ should take the opportunity under RULOF to rectify this short-sighted analysis and implement

rules that are appropriate for marginal oil wells with low amounts, and at times immeasurable amounts, of associated gas production.

We further suggest that TCEQ discount the cost-benefit analysis data conducted/compiled by EPA. It is inaccurate, incomplete, and non-representative, especially when it comes to marginal wells. This is because the EPA utilized Subpart W data in its analyses, and smaller operators of smaller wells largely do not report under Subpart W. This clearly skews the data and any cost-benefit calculation toward larger wells and therefore cannot properly represent marginal/stripper wells or the effects to the state and nation's marginal well inventory.

Additionally, EPA did not factor other costs into their analysis. For example, sites that produce more than 40 tpy of methane emissions can only flare that gas due to technical or safety infeasibility under OOOC. This requires a detailed analysis and annual certification by a professional engineer or other qualified person. Many smaller operators will need to hire either additional in-house staff or contract outside the company for this service annually. EPA did not include the costs for such professional services in its cost benefit analysis. OOOOc provides minimal guidance on how to conduct the detailed analysis to determine technical or safety infeasibility, but in this analysis, costs cannot be considered. Costs can vary highly by producing basin and other factors geologic and otherwise, yet EPA's cost effectiveness calculations only consider national averages. Again, this one size fits all approach is wholly inappropriate and insufficient, and TCEQ should take these various and obvious cost differences into consideration.

Summary of Current Recommendations

As indicated above, while we have additional comments and recommendations as TCEQ proceeds through the process of establishing the state plan, we recommend the following considerations at present:

- Structure the imposition of emissions guidelines on production volumes as opposed to component counts.
- Create classifications/categories of wells based on production volume, to specifically include wells that meet the federal definitions of a "stripper well" 15 barrels/day or less of crude oil, and 90 mcf/day of natural gas (or a boe equivalent).
- If helpful and necessary, create additional classifications within the stripper well volume definition based on the distribution of production volumes within that range.
- Create additional separate classifications/categories of wells based on natural gas wells, and crude oil wells that produce low volumes of natural gas.
- Utilize the RULOF principal, recognizing that these wells have reached the latter stages of useful life, to explicitly exempt some or all of these classifications from the rule.
- Specifically, as has previously been the case under EPA/state precedent, establish an explicit exception from the rule for stripper wells under the federal definition.
- Alternatively, to explicitly exempt wells with a low volume (tons per year) of methane emissions

 perhaps 10 tpy or less (though the production volume exemptions would likely cover that as well).
- Where necessary, to allow for an AVO-based (audio, visual, and olfactory) inspection structure that minimizes the cost of compliance and offers the greatest opportunity to keep the wells in service.

- For those wells and facilities that remain subject to the emissions guidelines, to establish a declining frequency of required testing as facilities demonstrate requirements. For example, if the AVO is quarterly and nothing is found after a year, the test period would be changed to semi-annual and then to annual and then to biennial. Similarly, if there are tranches of requirements, facilities should move to lower requirements as they meet those thresholds, e.g., if a well site starts at 10 barrels/day and drops to 5 barrels/day, it should see its requirements lessen if there are lower requirements at lower production rates.
- Otherwise seek out ways to create a state plan that will pass muster with EPA in ways that impose minimal costs on operators and allow most or all of the wells in Texas to continue to operate.
- To discount the EPA's cost of compliance data, as it is not representative of the majority of wells in Texas, and in fact to conduct its own cost-benefit analysis as a part of this process.
- Seek guidance and input from oil and gas operators during the process of drafting this state plan, even after this informal comment period, to gain the greatest possible understanding of the operational realities in Texas, and production from low volume wells in particular.

This is as consequential an issue as the oil and gas industry in Texas has faced in a very long time, as it stands to directly affect a large number of both companies and wells. If not done well and correctly, as detailed above, the imposition of these guidelines for existing sources stand to put companies out of business and wells out of commission, causing untold economic damage and potential environmental damage in virtually every area of the state. The TAEP looks forward to working with you in this important process, and we greatly appreciate the opportunity to comment.

Sincerely,

Karr Ingham, Economist and President Texas Alliance of Energy Producers