



**TEXAS
METHANE & FLARING
COALITION**

**Flaring Recommendations
and Best Practices**

June 16, 2020

Introduction to Texas Methane and Flaring Coalition

The [Texas Methane and Flaring Coalition](#) (Coalition) was formally established in December 2019. By January, it grew to include seven trade associations and more than 40 Texas operators. The Coalition was formed voluntarily to assess the issues of methane emissions and flaring and to develop industry-led solutions.

Texas operators recognize that reducing flared volumes, keeping flares lit, and optimizing combustion are vital issues. To that end, the Coalition is committed to working collaboratively to continue developing our state's natural resources, while improving environmental performance. The Coalition is working to collectively identify and promote operational and environmental recommended best practices to minimize flaring and methane emissions.

The Coalition is dedicated to developing solutions because we recognize the leadership role expected of the oil and natural gas industry to Texas. The industry anchors our economy by creating high-paying jobs and generating revenues unmatched by other industries in our state. Oil and natural gas contribute greatly to products and materials that we use every day like plastics, medicines, computers, life-saving devices and much more.

Executive Summary

In this report, the Coalition discusses the issue of flaring, our recommendations to the Railroad Commission of Texas (Commission) to minimize flaring, and the industry's dedication to environmental progress. The Coalition believes collaborating with a diverse group of stakeholders and regulators, harnessing the latest technologies, and allowing for an appropriate amount of time to implement new procedures will result in reduced flaring in Texas.

Issue of Flaring

The Coalition agrees we should strive to end routine flaring and provides thoughtful recommendations to help accomplish this goal. Flaring occurs for a variety of reasons and there is not a "one-size-fits-all" approach for managing operations. Sometimes flaring is necessary for safety, due to gas quality, and other reasons, such as maintenance and system outages. Midstream companies, operators and regulators use a variety of measures to reduce flaring in Texas.

Beyond the recommendations included by the Coalition, a continued reduction in flaring will occur as innovation and technology advances and more pipeline capacity is developed.

Ongoing Investments Improve Environmental Performance

The Coalition will continue assessing flare performance and collaboration among the industry's best engineers and scientists on facility designs and technology. When natural gas cannot be captured in a pipeline or with other capture technology, utilization of efficient, emission-reducing flares is preferred as a pollution control method. Further, the Coalition is leveraging momentum from other voluntary industry-led efforts to reduce methane emissions including [The Environmental Partnership](#) (TEP) and the [Oil and Gas Climate Initiative](#) (OGCI) as well as industry innovations and technology that are advancing environmental progress.

- Oil and natural gas companies are investing heavily in new technology that will continue to reduce air emissions and protect the environment. In fact, the U.S. oil and natural gas industry is the leading investor in zero- and low-carbon technology, investing \$300 billion in greenhouse gas mitigating technologies between 2000-2016 – more than double the investments by any other private sector industry.
- Methane emissions from oil and natural gas systems are down 23% since 1990, according to the 2020 edition of the Environmental Protection Agency's [Inventory of U.S. Greenhouse Gas Emissions and Sinks](#). Technologies that include more advanced leak detection equipment and innovative capture techniques are driving this decrease in emissions during a time when oil and natural gas production increased dramatically.
- While U.S. oil production greatly exceeds other countries' production levels, the nation's flaring intensity is well below that of the comparable countries, according to [data from the World Bank and the U.S. Energy Information Administration](#).
- Global carbon dioxide emissions plateaued in 2019, with the U.S. seeing the largest decline in energy-CO₂ emissions. This positive development was largely driven by a switch to natural gas as a greater fuel source, according to a [February report from](#)

[the International Energy Agency](#). The report also indicates the vast opportunities that still exist for natural gas to drive emissions reductions around the world.

Expanding Infrastructure Enhances Environmental Progress and Energy Security

Flaring is required at times to maintain safe, environmentally sound operations in areas where more pipeline infrastructure is needed to transport abundant, clean natural gas to processing facilities and ultimately consumers. As pipeline infrastructure comes online, operators will capture and transport this valuable product more efficiently.

- Oil production in the Permian Basin alone accounts for roughly one-third of the nation's and more than two-thirds of Texas' total oil production. Adequate pipeline capacity is critical to ensuring energy reaches consumers in Texas, around the country and across the globe.
- New pipeline infrastructure improves air quality and safety by ensuring fewer trucks are on our roads and highways.
- Expanding energy infrastructure, including pipelines, tanks, processing facilities and terminals, is the best way to increase energy reliability and security and to protect our fuel supply in the event of a natural disaster.

Railroad Commission Regulatory Framework for Flaring

The industry and the public have greatly benefited from robust permitting, compliance, and enforcement actions by the Hearings, Oil and Gas, and Enforcement Divisions at the Railroad Commission of Texas. Through evaluations, scrutiny, and inspections, the Commission has worked to modify venting exceptions to permitted flaring, shorten the duration and volume of flaring, and has recently deployed drones to further conduct efficient inspections of remote sites.

Additionally, the Coalition supports the Commission's continued action to further their monitoring and enforcement abilities and efforts related to Statewide Rule 32.

The following is the Commission's role in regulating flaring as described on the [Commission website](#):

"[Statewide] Rule 32 authorizes the flaring of gas while drilling a well and for up to 10 days after a well's completion for operators to conduct well potential testing. Outside of that time period, the Commission requires operators to obtain an exception to Rule 32 authorizing flaring for specific situations and circumstances. Our trained staff works closely with operators to ensure compliance with Commission rules. RRC District Offices have inspectors available to witness operations, conduct inspections, provide information about permitting requirements, and ensure compliance with permits issued by the Commission."

Texas Methane and Flaring Coalition Flaring Recommendations

The Coalition has worked diligently to develop options to reduce flaring with the documents described below. These are meaningful changes that represent a data collection opportunity for a better scope of progress for reducing flaring in Texas. The recommendations will allow operators to flare when necessary but encourage operators to flare less for less total time and to seek and develop alternatives. This is done by utilizing the Commission's authority to grant administrative flare permits in a way that reserves the maximum duration for operations far from suitable infrastructure, or when operators will develop technology or procedural innovations in actual operations which have the potential to minimize flaring. Operators would file a subsequent report with actual operational details of the results of those efforts and for all administratively permitted flare events. Additionally, all operators would account for flared and vented gas dispositions separately on the monthly report of operations, Form PR.

I. [Texas Methane and Flaring Coalition Proposed RRC Flaring Matrix](#)

The Coalition created a matrix which identifies the situations when flaring is necessary and provides recommendations for the application of Statewide Rule 32 that will result in overall flaring reductions because of the shortened time frame for administrative approvals of flaring. The current maximum durations are still available to operators, but they may require two applications, or they may be granted after a hearing for the longer durations. Conversely, operators have additional options that may be suitable for their particular situations. For example, the first row of the matrix describes the situation where a new well is

drilled in an area without infrastructure (“No pipeline/lack of infrastructure”). In that situation, four options are available to an operator wishing to flare past the limits authorized in Rule 32; they are listed under “proposals to reduce flaring.” Due to the various situations where flaring is necessary, it is essential that all of these options are available to operators as this will lead to a more workable situation which accomplishes the goal of reduced flaring. The operator may request:

- An additional 90 days (for administrative approval), then go to hearing if more time is needed. *Note: this is a reduction of 50% from the current 180-day period.*
- To flare up to 5 days per month (admin) over a 180-day period, then go to hearing if more time is needed (30 actual days of flaring over a 180-day period). *Note: this is a reduction of 83% from the current 180-day period.*
- A one-time administrative approval for 180 days if gas volume flared is reduced via application of a flare reduction technology. The SWR 32 Subsequent Report (introduced below) will include a detailed technical report on the reduction obtained by use of the alternative technology. If more time is needed, the operator would go to hearing.
 - The Coalition has included an [Emerging Oil and Natural Gas Technologies](#) document to provide examples of technology but not limited to any one type of technology or vendor. Technology is frequently evolving to provide economic and technical efficiencies, so it is important to not place limitations on emerging technology solutions.
- A step-out (drilling in undeveloped areas): a. lack of infrastructure for the quality of gas; or b. 2-1/2 miles radius review for pipeline availability; 90-day renewable administrative extensions available for a maximum of 180 days then go to hearing if more time is needed.
- After evaluating these options, an operator may request approval at a hearing.

II. Texas Methane and Flaring Coalition Proposed SWR 32 Data Sheet

The Coalition reviewed the SWR 32 Data Sheet and made the following recommendations for enhancements:

- Add whether the request is new or a renewal.
- Provide the location where flaring would occur.
- Promote consistency amongst operators and ease the querying and grouping of data by providing additional choices for the reason for filing the exception.
- Include the four options from the Proposed RRC Flaring Matrix when the reason for flaring is “no pipeline.”
- Provide changes to correlate with the PR Form Instructions.

III. Texas Methane and Flaring Coalition Proposed SWR 32 Subsequent Report

The Coalition has created a suggested new report that serves as a follow up to the SWR 32 Data Sheet. This Subsequent Report would provide actual volumes and durations for all administratively permitted flare events. Operators using technology or procedural innovations that have the potential to minimize flaring can also utilize this report on the success or failure of their efforts. The goal of this report is for the Commission to have clear and usable data. To avoid additional manpower requirements, continued IT Modernization of the Commission’s website to streamline data entry will create efficiencies that benefit the regulatory agencies, operator, and the public.

IV. Texas Methane and Flaring Coalition Proposed PR Form Instructions

This document is an update to the Production Report (PR) Form Instructions. The recommended change would separate vented and flared volumes by adding an additional code for flaring, enabling all operators to account for flared and vented gas dispositions separately on the Form PR, monthly report of operations.

Developing a more stringent framework for granting exceptions to Statewide Rule 32 and enhancing reporting from operators will provide more information to better understand the reasons for flaring and build upon best practices that many operators have already incorporated.

Texas Methane and Flaring Coalition and Other Industry-Led Best Practices

To further our goal of ending routine flaring and minimizing methane emissions, the Coalition has worked to improve workable requirements at the regulatory level. However, the Coalition also realizes that voluntary industry-led efforts typically drive the most significant and lowest cost solutions. The oil and natural gas industry has a history of addressing environmental, safety, and economic challenges through industry-led initiatives including The Environmental Partnership (TEP) and Oil and Gas Climate Initiative (OGCI). Through voluntary efforts, oil and natural gas companies are investing heavily in new technologies that will continue to make progress toward reducing air emissions and protecting the environment.

TEP is a nationwide industry-led initiative comprised of U.S oil and natural gas companies with the goal of continuously improving the industry's environmental performance. Highlights from TEP's first year include:

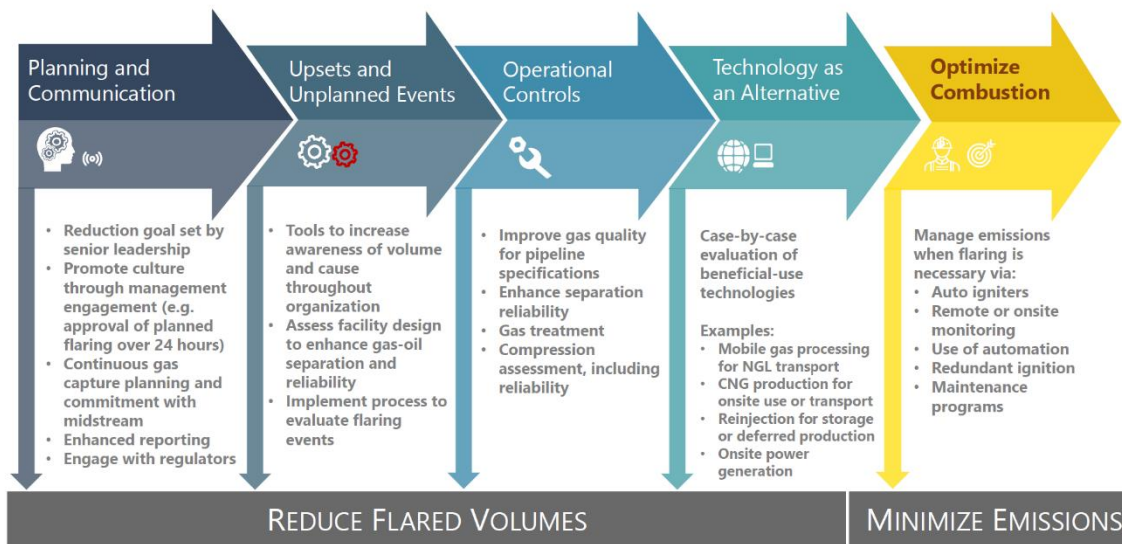
- More than 3,000 high-bleed pneumatic controllers replaced, retrofitted, or removed from service;
- More than 28,000 high-bleed pneumatic controllers replaced, retrofitted, or removed from service prior to 2018;
- 38 participating companies no longer have high-bleed pneumatic controllers in their operations; and
- More than 156,000 surveys conducted found a 0.16% leak occurrence rate.

The OGCI is a CEO-led consortium that aims to accelerate industry response to climate change. Investments through the OGCI have led to the development of technologies that continue environmental progress by the oil and natural gas industry. These innovations include:

- Novel measurement technologies that deliver lower cost emission assessment satellite, aerial, or drone-based instrumentation systems;
- Enhanced valve and control systems to minimize or eliminate emissions; and
- Development of remote power and compressed air pneumatic controller solutions to reduce methane emissions.

The Coalition is further enhancing the oil and natural gas industry’s development, sharing, and implementation of innovative technologies by engaging industry leaders to identify and share proven and promising practices. As illustrated in the figure below, the Coalition’s development of best practices is based on a chain of communication to evaluate operational and technical considerations related to flaring with the goal to minimize flaring, but if flaring must occur, how to best manage flaring practices. This process helps to ensure a comprehensive review of flaring and the identification and implementation of the most effective solutions for the reduction of flaring. This hierarchy will continue to guide future Coalition best practice efforts.

Texas Methane & Flaring Coalition: Flaring Best Practices



Implementation with the Railroad Commission

The above recommendations represent the Coalition’s assessment of various mechanisms to minimize flaring and methane emissions through enhancements and operational best practices. We recognize that the Commission and other stakeholders will have additional input and look forward to working collaboratively toward our common goal of reducing flaring in Texas. This work includes the need for continued efficient IT Modernization improvements at the Commission. The Coalition knows that ample time, productive dialogue with our regulators, and input from stakeholders are essential to ensure we minimize flaring, generate and assess relevant data, avoid duplicative processes, and fuel compliance together.

Ongoing Work of the Coalition

Efforts to minimize methane emissions and flaring must be an ongoing process. Coalition members are continuing their work beyond the initial recommendations that will lead to additional reductions in flaring in Texas. Ongoing efforts include:

- A periodic review of the changes that the Commission implements and an assessment of their effectiveness; and
- Review and assessment of the recommended best practices from the Coalition.

Additional work products of the Coalition that are expected before the end of 2020 include:

- A Glossary and FAQ on the Coalition website (completed in May 2020);
- Additional Methane and Flaring Best Practices;
- Methane and Emissions 101 Report;
- Flaring 101 Report;
- Coalition technical workshops to provide updates to best practices, strategy optimization, new technology advancements and more;
- Aerial surveys and data collection to stay informed on emissions in the Permian Basin and beyond; and
- Company commitments to minimize flaring and methane emissions.

For more information on the Texas Methane & Flaring Coalition, visit

www.TexasMethaneFlaringCoalition.org