



**ZERO**The word "ZERO" in a bold, black, sans-serif font. The letter "O" is replaced by a stylized circular graphic composed of three overlapping segments in green, orange, and red, with a small subscript "2" to its right.



## CASE STUDY

OIL AND GAS PRODUCER STREAMLINES PERMITTING  
IN TEXAS WITH EMISSIONS MITIGATION TECHNOLOGY

July 2020

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## SITUATION

An E&P operator with an active drilling program focused on the Delaware Basin region of the Permian Basin in Texas needed a solution to fast track drilling permits to maximize operational efficiencies and optimize returns on resource development.

Well sites and production pads with a Potential to Emit (PTE) above 25 tons per year of VOC (tpy) must apply to the Texas Commission on Environmental Quality (TCEQ) for a Standard Permit, which requires state approval. If PTE is above 100 tpy, then a Title V permit must be filed with State and Federal authorities.

Obtaining permits can be time-consuming and expensive. Delays in the permitting process can result in operational inefficiencies and higher costs, which can negatively impact return on investment. The operator needed to streamline the process for obtaining air emissions permits without impairing returns.

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## SOLUTION - PERMIT BY RULE

TCEQ allows operators who install emissions mitigation technologies to reduce PTE by up to 100% of estimated vapor emission reductions. If the oil and gas site PTE emissions, including the volumes captured by the ZerO<sub>2</sub> units and other contributing technologies, total less than 25 tpy, then operators can proceed with flowback and production operations without filing a permit request with the TCEQ. This process is known as Permit by Rule.

The operator chose the EcoVapor ZerO<sub>2</sub> solution as the primary technology for reducing emissions. Two ZerO<sub>2</sub> E300 units were successfully installed and commissioned on a well pad for the operator, significantly reducing PTE and enabling use of Permit by Rule.

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## BENEFITS

Benefits using the EcoVapor ZerO<sub>2</sub> solution include:

- **Use of Permit by Rule**, which streamlined the permitting process.
- **Increase the number of producing wells on a single pad.** More wells generate greater volumes of tank vapor gas that can be captured, increasing the amount of “capture credit” the operator can use to offset total PTE from a single pad.
- **Reduced capital expenditures.** Increasing the number of wells on the single production pad means surface equipment can be consolidated onto one location and the operator avoided expensive rig moves.

**CONTINUED**

- **More profits.** The operator generated additional profits by capturing and selling rich-Btu tank vapor gas that would have otherwise been flared.
- **Higher uptime.** The ZerO<sub>2</sub> units remove oxygen from the gas stream, which ensures gas entering the sales line meets pipeline specifications, eliminating shut-ins associated.
- **Reduced flaring.** Capturing and selling tank vapor flash gas significantly reduces or eliminates the need to flare, which reduces associated emissions of NO<sub>x</sub>, a precursor of Ozone.
- **Reduced fugitive emissions.** Capturing and selling tank vapor flash gas also reduces fugitive emissions of methane and VOC from surface storage tanks.
- **Safer.** Improved safety profile by actively reducing storage tank pressures and measuring oxygen in the vapor streams.

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## ABOUT THE ZERO<sub>2</sub> OXYGEN REMOVAL SYSTEM

The patented ZerO<sub>2</sub> system offers operational flexibility, modularity and reliability. ZerO<sub>2</sub> units are skid mounted and have a small 4'x4' footprint with only one inlet and one outlet, so they can be installed on any production pad. The ZerO<sub>2</sub> is modular, with the ability to run multiple units in parallel to scale-up, or down, as volumes change during the life of a well. With no moving parts, ZerO<sub>2</sub> units are extremely reliable.



# ZERO<sub>2</sub>

Contact us today at  
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or [Info@EcoVaporRS.com](mailto:Info@EcoVaporRS.com) to see if  
ZerO<sub>2</sub> can help fast track your  
permitting and production.



*In Pursuit of the Zero Emissions Wellsite*

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