Department of Environmental Quality
Air Quality Division

January 5, 2021

SUBJECT: OAC 252:100-37-37 Effluent Water Separators and Oil & Gas Facilities (OGFs)

OAC 252:100-37 (Subchapter 37) limits emissions of Volatile Organic Compounds (VOCs) from various equipment and processes. Subchapter 37 contains requirements for storage tanks and effluent water separators. Depending on how tank is constructed and/or operated it may be considered an effluent water separator. This general guidance is intended to clarify the criteria AQD utilizes when evaluating if a tank qualifies as an effluent water separator at an OGF.

Review

Subchapter 37 contains control requirements for certain effluent water separators at OAC 252:100-37-37. Subchapter 37 defines an effluent water separator as "any container in which any VOC floating **on**, entrained **in**, or contained **in water** entering the container is **physically separated** and **removed from the water** prior to discharge of the water from the container." (emphasis added).

Subchapter 37-4 also provides exemptions from Section 37 including:

(a) VOCs with vapor pressure less than 1.5 pounds per square inch absolute (psia) under actual storage conditions, and;
(b) Petroleum or condensate stored, processed, treated, loaded, and/or transferred at a drilling or production facility prior to lease custody transfer.

OGFs produce VOC/wastewater mixtures in two main methods:

- Facilities will "pig" pipelines upstream of a facility to remove condensed water and/or VOCs; or
- Inlet product flows through an inlet separator which produces a wastewater/VOC mixture.

Since the VOC/wastewater mixture often contains a marketable volume of VOC liquids, facilities will utilize different methods to recover the remaining VOC. The two main processes reviewed in this discussion include gravity separation in a standard vertical tank and tanks/vessels designed to enhance physical separation through mechanical or physical design.

Gravity separation in a vertical tank is accomplished by pumping the VOC/wastewater mixture into a vertical tank and the mixture is stored for a period of time to allow the VOC and wastewater to separate. The wastewater is then pumped to a dedicated wastewater tank or the VOC may be skimmed off of the top and sent to a dedicated condensate tank.

Enhanced separation occurs when a tank or vessel has been specifically designed to enhance the physical separation. These units utilize but are not limited to baffles, spreaders, etc. These units are also not designed for long term storage but are designed for the VOC/wastewater mixture to flow through the unit.

General Guidance Conclusion for OGFs

Subchapter 37 does not apply to effluent water separators that accept VOCs with a storage vapor pressure less than 1.5 psia, or to effluent water separators located at drilling or production sites.

Additionally, storage tanks that only utilize gravity for separation of the VOC/wastewater mixture during storage are not considered effluent water separators and are not subject to the effluent water separator provisions of Subchapter 37. However, these tanks may be subject to the storage tank provisions of Subchapter 37.

Unless specifically exempted, a container that has been built to enhance the physical separation of VOC/wastewater mixtures through design specifications such as, but not limited to, baffles, spreaders, etc., are effluent water separators subject to Subchapter 37-37. These units are not designed for long term storage but for the VOC/wastewater components to separate and flow through the unit.

This document is intended as general guidance only, and is not a final agency decision or action. A final agency determination regarding source-specific equipment may be obtained by contacting the Air Quality Division at 405-702-4100.