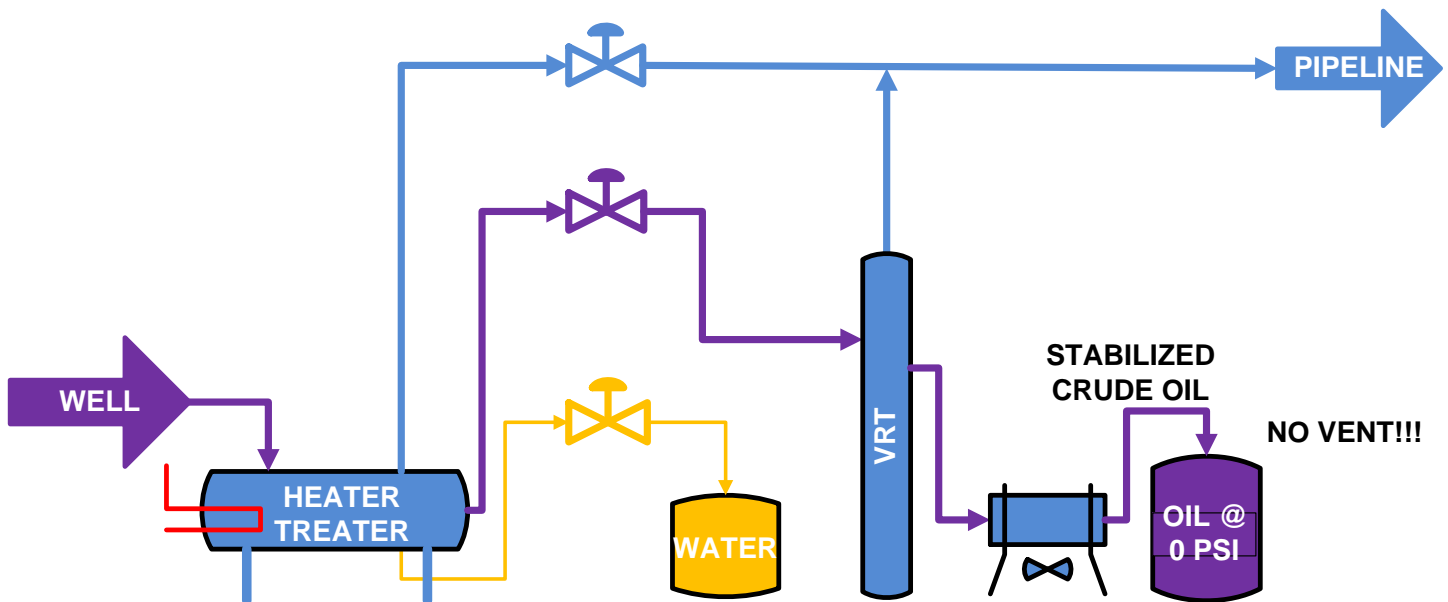


CRUDE OIL STABILIZATION AND RECOVERY LITE**Crude Oil Stabilization, Tank Vent Elimination, and EPA Quad O Compliance**

Aspen Engineering Services offers a revolutionary, cost-effective solution to the EPA's Quad O regulation. The Crude Oil Stabilization and Recovery Lite (COSR) process eliminates the tank vent by cooling the oil before delivery to the tank. Concurrently, the volatility of the oil is stabilized for safer storage and shipment. The patent-pending COSR Lite process is a unique solution for the oil and gas industry.

Crude oil is heated to 130° F in the heater treater at 30-50 psig to vaporize and separate volatile organic compounds from hot oil and water. Alternatively, the pressure in the heater treater can be reduced without raising the temperature. The oil from the heater treater is delivered to a Vapor Recovery Tower (VRT) where Volatile Organic Compounds are separated. The oil is cooled in an air cooler, and then flows into the storage tank. The oil does not flash in the storage tank because the Volatile Organic Compounds have been removed and the oil is cooled.

**CASE STUDY**

Six crude oil wells, each producing 425 barrels per day, with an uncontrolled Reid vapor pressure of 18, are gathered to feed a single heater treater at 30 psig. The crude oil Reid vapor pressure is reduced to 9 psi while completely eliminating the tank vent. The previously combusted tank vent is now monetized in the pipeline.