

DESCRIPTION

Tank Vapor Control System (TVCS) certification requirements within OOOOa

- Certification requirement for fixed roof water and oil storage tanks
- OOOOa is a subpart under **Title 40, Part 60** of the Code of Federal Regulations (CFR)

APPLICABILITY

Any facility that is **constructed, reconstructed or modified** after **9/18/2015**.

- If the facility has potential to emit (PTE) equal to or greater than **6 tons per year (tpy)** of VOCs, where 1 ton = 2000lb (short ton)
- Federal, state, local, or tribal regulations may have an impact on potential to emit (PTE) and should be evaluated to determine the impact on **OOOOa** applicability

COMPLIANCE & CERTIFICATION

NEW OR ADDITIONAL Tanks

- If the PTE of a tank or tank battery is equal to or greater than 6 tpy of VOCs, then it is required to reduce emissions by 95% under **OOOOa** via a control device
- This can be by means of recapture (VRUs) or flaring

EXISTING Tanks

- Once reconstruction or a modification is made to an existing tank that increases the tank's or tank battery's PTE to or above 6 tpy, it becomes a storage vessel affected facility and must follow **OOOOa** requirements

TVCS Memo Requirements

- A Tank Vapor Control System (TVCS) memo is a professional engineer stamped document that confirms that the closed vent system and control device is of sufficient design and capacity to handle all emissions from the affected facility
- This ensures thief hatches and other pressure relieving devices will not vent VOCs to the atmosphere during normal operation

CALC METHOD

When **evaluating low pressure systems**, every detail is essential to accurately predict peak flowrates and prevent atmospheric releases

- Determine the maximum, normal operation vent system flow rate by combining the vapor contributions from thermal out-breathing, displacement out-breathing and flashing, assuming that the maximum vapor rate from each effect occurs simultaneously
- Once the maximum normal operation vent rate is determined, the piping system details are entered into a pressure drop calculation tool to model the piping system

These system details include the following:

- Pipe Size
- Pipe Lengths
- Flare Model
- Flame Arrestor Model
- Fittings (elbows, tees, etc.)
- Valves (ball, check, back pressure control, etc.)
- Thief Hatch/Pressure Relief Valve Setpoint
- Dump Valves
- Atmospheric Pressure at Site



WHY HALKER?

Halker uses a people-first approach to every step of project execution, assembling the best teams, gathering input from everyone, and leveraging the power of this open and inclusive environment to develop industry-leading designs. We leverage process, methodology, standards and policy to scale productivity and continually improve quality and efficiency.

Given our broad background in engineered solutions, we understand the factors beyond project objectives that go into everything we work on, including evolving regulations and environmental impacts. By addressing these aspects head-on at the start of every project, **Halker** is better able to design effective, compliant projects and reduce rework.

We dig deep to fully understand your strategic objectives and what you need to accomplish. This sets **Halker** up to deliver fit-for-purpose solutions as well as additional, value-added project approaches that make a real difference to your bottom line.

To find out more about how **Halker** can help move your project forward in a safe, professionally engineered and optimized manner, contact us today.

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