

**Comments for NPRM
USCG-1999-5150
Marine Vapor Control Systems**

154.2103(a)

Second sentences reads...

“Vapor growth must be considered as 25 percent of the cargo's true vapor pressure in pounds per square inch absolute at 115°F, divided by the vapor pressure of gasoline at 115°F (12.5 psia), unless there is experimental data for the actual vapor growth for turbulent transferring under the most severe conditions for vapor growth.”

Two (2) comments, first the true vapor pressure of gasoline varies by season and location. If the intent is to use a fixed reference vapor pressure for adjusting the growth factor for other cargoes, then 12.5 psia should be taken out of the parentheses and the phrase “vapor pressure of gasoline at 115°F” put in parenthesis. Other portions of the proposed rule (154.2000(i)) state that numbers in parentheses are only for the readers convenience and are not regulatory.

I don't believe it is the intent of the new rules to have variable growth factors depending on the worst case gasoline vapor pressure conditions for a given location. If it is, then it becomes very difficult to determine the worst case gasoline vapor pressure because the marine facility in question may not store or load gasoline.

Second, I believe the growth factor calculation description here could be misinterpreted. Either “Vapor Growth” or “Vapor Growth Factor” should be defined in 154.2001, or the sentence clarified as...

“Vapor growth must be considered as 25 percent of the cargo's true vapor pressure in pounds per square inch absolute at 115°F, divided by the vapor pressure of gasoline at 115°F, 12.5 psia, times the facility's maximum liquid transfer rate, unless there is experimental data for the actual vapor growth for turbulent transferring under the most severe conditions for vapor growth.”

154.2022(b)

Consider adding the following to the operational review requirements of this section.

- 1) Confirm that the originally certified liquid cargo transfer rate can still be attained to meet the requirements 154.2103 and 154.2107 . (Over time filters and detonations arresters become plugged and prevent the MVCS from attaining the transfer rates achieved during the original certification tests.)
- 2) Confirm through training records that the current list of available facility PICs have been trained per the requirements of 154.2030.
- 3) Review mechanical and controls changes to the MVCS since the last certification or recertification to insure the certification letter is current.

4) Confirm the record keeping requirements of 154.740 and tests and inspection requirements of 156.170 are being met.

5) Confirm the facility vapor connection complies with the requirements of 154.2101. Over time, weathering of the facility vapor connection has been observed. Specifically, the labeling requirements of 154.2101 (b) is destroyed or becomes illegible. Also, the permanent stud required by 154.2101 (c) becomes corroded and bypasses the electrical insulation device required by 154.2101 (g).

154.2103(j)(1)

Not all marine facilities are sea level, so 13.7 psia may be less than -1 psig in some locations. Suggest rewording to:

“...vapor connection is maintained at -1.0 psig (1.0 psig vacuum);”

Generally, the pressure relief valves are a weighted pallet design that open based on gauge pressure, not absolute pressure.

154.2105(h)

It is possible that the alternatives of this paragraph could be misinterpreted. It is not clear whether (3) is an alternative for (1) and (2) or just an alternative for (2).

154.2106 (a) and (c)

It is not clear whether these paragraphs reference components upstream of the detonation arresters, downstream of the detonation arresters or both.

154.2180(a)(4)

Consider rewording the definition of SSB to:

“... gas is introduced at or near the sampling probe and...”

END OF COMMENTS