Some of the more recent issues addressed concerning VCS requirement clarifications and exemption determinations are:

a. Line clearing (pigging) operations to tank vessels while connected to a VCS – Pigging is the practice of removing residual cargo from a line by forcing a tight-fitting object known as a "pig" down the line under pressure, in effect "squeegeeing" the interior sides of the cargo pipe clean. The regulations currently prohibit pigging of cargo lines to a vessel when VCS is being employed. This is due to the dangers involved in potential exposure of the vessel's cargo tanks to extremely high pressures, typically in excess of 50 psig.
b. Alternative flow and pressure control schemes – Several requests have been received for systems which use volumetric measurement to control the amount of vapor enrichment, to waive the requirement for oxygen or hydrocarbon analyzers due to the corrosive nature of the cargo vapors being controlled. These systems have been allowed to operate with two independent devices, which can verify the correctness of the enrichment gas volumetric flow rate in lieu of the required analyzer. In addition, the enriching gas flow rate must be determined assuming the vapor entering the system is 100% air.
c. MESG determinations – evaluations are conducted for the determination of minimum explosive safe gap (MESG) values for cargoes other than crude oil gasoline blends and benzene.
d. Detonation arrester location – Since the VCS regulations were promulgated in 1990, numerous requests have been received for exemptions from the regulations requiring a detonation arrester to be located within six meters of the facility vapor connection. This leaves a greater length of exposed vapor pipe that is not protected by the detonation arrester. In order to obtain an exemption, the requester must demonstrate that their proposal provides an equivalent level of safety to what is required by the regulations.
e. Dual Barge loading – Several requests have been received to allow consecutive or simultaneous loading of tank barges, which are moored abreast at the facility. A number of configurations have been proposed, including routing of the outboard barge's vapor through either a "dummy" header on the inboard barge, or the inboard barge's existing vapor header. These operations are inherently more dangerous because they involve the combination of cargo and vapor system components on more than one vessel.
f. Alternate vapor stream enriching schemes - The current regulations require enriching systems to inject enough hydrocarbon vapors into the vapor stream to maintain a hydrocarbon concentration of at least 170% of the cargo's UFL. This requirement was based on methane as an enriching medium, which provided a 10% safety margin. For high UFL cargoes, such as methanol, the safety margin provided by this requirement is excessive, and in some cases unattainable.