

ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT

RULE 465 -- VACUUM-PRODUCING DEVICES OR SYSTEMS

(Adopted: 5/7/76; Amended: 3/2/79; Amended: 4/4/80; Amended: 12/7/90; Amended: 11/1/91)

(a) Applicability

The provisions of this rule shall apply to all volatile organic compound emissions and sulfur compound emissions from any petroleum refinery vacuum-producing devices or systems, including hot wells and accumulators.

(b) Definitions

(1) ACCUMULATOR is a tank or chamber for collecting and temporarily storing a condensed petroleum distillate which is the interim product in a refinery process.

(2) EXEMPT COMPOUNDS are any of the following compounds which have been determined to be non-precursors of ozone:

(A) Group I

trifluoromethane (HFC-23)

chlorodifluoromethane (HCFC-22)

dichlorotrifluoroethane (HCFC-123)

tetrafluoroethane (HFC-134a)

dichlorofluoroethane (HCFC-141b)

chlorodifluoroethane (HCFC-142b)

cyclic, branched, or linear completely fluorinated alkanes

cyclic, branched, or linear completely fluorinated ethers with no unsaturations

cyclic, branched, or linear completely fluorinated tertiary amines with no unsaturations

sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

(B) Group II (Under Review)

methylene chloride

carbon tetrachloride

1,1,1-trichloroethane (methyl chloroform)

trichlorotrifluoroethane (CFC-113)

dichlorodifluoromethane (CFC-12)

trichlorofluoromethane (CFC-11)

dichlorotetrafluoroethane (CFC-114)

chloropentafluoroethane (CFC-115)

The use of Group II compounds may be restricted because they are either toxic, potentially toxic, or upper-atmosphere depleters, or cause other environmental impacts. Specifically, the District Board has established a policy to phase out chlorofluorocarbons (CFC) on or before 1997.

- (3) HOT WELL is a chamber for collecting water condensate which is contaminated with the product of a refinery process.
- (4) VACUUM-PRODUCING DEVICE OR SYSTEM means any device or system which acts to maintain the pressure inside a petroleum refinery process vessel below 14.7 pounds per square inch, absolute.
- (5) VOLATILE ORGANIC COMPOUND means any chemical compound which contains the element carbon, except methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

(c) Requirements

- (1) Hot wells and accumulators shall be equipped with covers.
- (2) Exhaust gases from vacuum-producing devices or systems shall not contain sulfur compounds in excess of 800 ppm expressed as hydrogen sulfide.
- (3) VOC emissions from vacuum-producing devices or systems, including hot wells and accumulators, or from desulfurization equipment required in subparagraph (c)(2) shall be reduced by at least 90 percent from uncontrolled conditions.

(d) Test Methods

Efficiency of the control device shall be determined according to EPA Method 25 or 25A, or SCAQMD Test Method 25.1 (Amended February 26, 1991). EPA Method 18 or ARB Method 422 shall be used for determination of exempt volatile organic compounds. Tests of sulfur concentration shall be in accordance with test requirements set forth in SCAQMD Test Method 307. Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of this rule.

[SIP: Submitted as amended 11/1/91 on 6/19/92; Approved 8/11/92, 57 FR 35758, 40 CFR 52.220(c)(184)(i)(B)(2); Approved 1/21/81, 46 FR 5965, 40 CFR 52.220(c)(69)(i); Approved _____, _____, 40 CFR 52.220(c)(45)(ii)(A); Disapproved prior rule 69 retained 9/8/78, 43 FR 40011, 40 CFR 52.220(c)(39)(iii)(C) and 40 CFR 52.229(b)(3)(ii)(A); Disapproved 6/14/78, 43 FR 25684, 40 CFR 52.220(c)(32)(iv)(A) and 40 CFR 52.229(b)(1)(i)]