

01/25/1979

VOC090125792

Category: 9 – Gasoline Terminals

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

DATE: January 25, 1979

SUBJECT: Review of Draft VOC Regulations--Gasoline Marketing

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Agency guidance governing the 1979 State Implementation Plan (SIP) revisions for ozone nonattainment areas requires, in part, legally enforceable regulations to reflect the application of reasonably available control technology (RACT) to those stationary sources for which EPA has published a volatile organic compound (VOC) control techniques guideline (CTG) document prior to January 1, 1978.

A total of 44 States potentially require VOC regulations. Included are 39 States with 114 urbanized ozone nonattainment areas. There are also 5 States with nonurbanized ozone nonattainment areas. Thus, the total number of ozone nonattainment areas in the country is 119. Table I summarizes by Region the total number of urban areas, the number of States needing urban or rural area plans, and the number of States needing only rural (nonurban) plans. Appendix A further details the Regional, State, and urban areas that potentially require VOC regulations.

Table I

A Regional Summary of Urban Areas and States
Requiring VOC Regulations

	Number of urban areas	Number of States needing urban or rural area plans	Number of States needing rural (nonurban) plans
Region I	8	6	3
Region II	8	2	0
Region III	14	6	1
Region IV	19	7	0
Region V	26	6	0
Region VI	14	5	0
Region VII	7	4	0
Region VIII	3	3	1
Region IX	11	3	0
Region X	4	2	0
Total	114	44*	5

*Includes District of Columbia as a State

Various State and local air pollution control agencies submitted draft VOC regulations for EPA review and comment prior to January 1, 1979. In an attempt to evaluate the acceptability of these VOC regulations, the gasoline marketing section of the regulations related to Stage I, bulk plants, and bulk terminals were reviewed. The objective was to evaluate emission limits for adherence to the presumptive norm, cutpoints, compliance schedules, and to identify any regulations that appear to be inconsistent with CTG documents or the regulations of other State or local air pollution control agencies. A total of 36 (26 State and 10 local agencies) VOC regulations were reviewed.

Most of the regulations that were reviewed were in the preliminary draft stage. In some instances, final regulations may have previously been promulgated and thus were not included with the draft regulations; hence, it was assumed in those instances that there were no regulations covering that particular industry.

A summary of data and information obtained in our review of the draft regulations follows.

Geographic Coverage of Regulations

As shown in Table II, the geographic coverage listed in the plans reviewed indicated that 9 States have proposed Statewide VOC regulations. Seventeen States have proposed regulations that would only apply to urban nonattainment areas.

Table II

Geographic Coverage-Plans Reviewed

	Number of States
Statewide	9
Urban areas	17
Subtotal	26
APCDs, cities, counties, etc.	10
Total number of plans	36

Regulation Quality

In the Control Technique Guideline (CTG) documents, both Stage I and bulk plant regulations are based on equipment standards; vapor balance is required in both instances. The bulk terminal regulation differs because it is based on a mass emission limit (80 mg/liter) although an efficiency regulation (90 percent by weight reduction in hydrocarbon) may be considered to be RACT equivalent.

Table III indicates that, except for exemptions, the vast majority of Stage I, bulk plant, and bulk terminal VOC regulations reviewed generally appear to comply with RACT or are considered to be RACT equivalent. It should be noted that for our review in instances where the language of the regulation was ambiguous, we evaluated the intent of the provisions. If, in our judgment, the level of control was equivalent to that specified in the CTG, it was determined to be RACT. Only in instances where control was clearly lacking (not within the 5 percent rule--see Dick Rhoad's memo of June 30, 1978 to Allyn Davis, Director, Air and Hazardous Materials Division, Region IX) did we determine it not to be RACT.

he bulk plant regulations may be a problem area because many drafts are vague regarding the unloading of the account trucks and the loading of delivery trucks. Some bulk plant regulations specify vapor balance (RACT) but are vague as to the applicability. Other regulations appear to rely on Stage I regulations to control the bulk plant storage tanks during unloading of account trucks.

Only Louisiana's Stage I, bulk plant, and bulk terminal regulations appeared clearly to be in conflict with RACT. In this case, the draft State regulations did not provide for the control measures specified in the CTGs.

Table III

VOC Regulations Gasoline Marketing Status-Plans Reviewed

	Stage I	Bulk Plants	Bulk Terminals
No regulations	1*	4*	4
RACT	34	31	31
Other than RACT	1	1	1
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Total	36	36	36

*New Hampshire has no nonattainment areas but submitted a bulk terminal regulation.

Exemptions in Regulations

Previous EPA guidance and regulations for Stage I have been developed with exemptions built around tank size. Satisfactory exemptions are considered to be new tanks (<250 gallons capacity), existing tanks (<2,000 gallons capacity), and tanks used exclusively for fueling of implements of husbandry (<550 gallons capacity). (For example, see Section 52.2438 of the Code of Federal Regulations.) Numerous State drafts contained the same tank size exemptions. One State (Maryland) used a higher tank cutoff size, exempting tanks less than 5,000 gallons. (Since there is a Federal promulgation still on the books in Maryland, the smaller tanks are apparently still covered.)

Some States chose to base their Stage I exemptions on monthly throughput rather than the tank size approach recommended by EPA. These exemptions range from 8,000 to 40,000 gallons per month throughput. In these cases, the quantity of VOC emission reductions must be evaluated (5 percent rule) to determine the approvability of these "throughput" Stage I regulations. Table IV (see next page) contains a list of these proposed throughput exemptions.

Bulk plant exemptions are described in Table IV. They are based solely on throughput. Only three State VOC regulations reviewed (California, Oregon, and Virginia) had a throughput exemption. EPA policy would allow approval of all plans with bulk plant throughput exemptions of less than 4,000 gallons per day.

Finally, Table IV indicates that California has a bulk terminal exemption of <17,000 gallons per day (5,000,000 gallons per year). Most States, in accordance with the bulk terminal CTG document, exempt loading facilities with a throughput of 20,000 gallons per day or less from bulk terminal regulations. Thus, California's proposed regulations are actually more stringent than our CTG.

Table IV

The following States have throughput or large tank size (2000 gallons) exemptions in their VOC regulations:

Stage I	Tank Size	Throughput
Clark County (Nevada)	<10,000 gallons	< 8,000 gal/mo
California	-	< 9,000 gal/mo
Wisconsin	-	<10,000 gal/mo
Minnesota	-	<13,300 gal/mo
Ohio	-	<15,000 gal/mo
Puget Sound Agency	< 5,000 gallons	<16,600 gal/mo
Oklahoma	-	<20,000 gal/mo
Virginia	-	<20,000 gal/mo
Michigan	-	<20,800 gal/mo
Maryland	< 5,000 gallons	-
Georgia	-	(<20,000 gal/mo (new) (<40,000 gal/mo (existing))
Bulk Plants		
California	-	* < 1,700 gal/day
Sacramento County APCD	-	* < 1,700 gal/day
Fresno County APCD	-	* < 1,700 gal/day
South Coast AQMD	-	<20,000 gal/day
Ventura County APCD	-	<20,000 gal/day
Oregon	-	< 2,375 gal/day
Virginia	-	< 4,000 gal/day
Georgia	-	** (< 1,000 gal/day) (< 2,000 gal/day)
Bulk Terminals		
California		*** <17,000 gal/day

* Assumes 300 working days/year (<500,000 gal/yr exemption).

** Assumes 20 working days/month (<20,000 gal/mo)
(<40,000 gal/mo).

*** Assumes 300 working days/year (<5,000,000 gal/yr exemption).

Compliance Schedules

Compliance schedules for Stage I, bulk plants, and bulk terminals are shown in Table V. In a number of instances, existing regulations are considered acceptable for RACT compliance. A large number of the draft regulations did not include a compliance schedule; hence, the final compliance date is unknown.

Table V

VOC Regulations Gasoline Marketing Compliance Schedules

	Prior to 1980	1980	1981	1982	None listed
Bulk terminals	8	2	6	6	14
Bulk plants	10	5	4	4	13
Stage I	10	4	6	7	9