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Category: 30 – Test Methods

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

DATE: NOV 15 1979

SUBJECT: VOC Test Methods or Procedures

FROM: Richard G. Rhoads, Director
Control Programs Development Division (MD-15)

TO: Director, Air and Hazardous Materials Division, Regions I-X

The Division of Stationary Source Enforcement (DSSE) has expressed concern that in some instances the State Implementation Plan (SIP) revisions include test method regulatory language which is unenforceable or totally lacking for the determination of compliance with the presumptive norms cited in the control technique guideline (CTG) documents.

The purpose of this memorandum is to summarize volatile organic compound (VOC) test methods or procedures that should be included in the SIP revisions to satisfy conditions of approval or otherwise obtain a fully approved SIP.

EPA policy, as cited on Page 222 of the April 1978 edition of the "Nonattainment Area Workshop Manual" and as reiterated in my memorandum of July 10, 1978 to Air and Hazardous Materials Division Directors, states, in part, "Where technically feasible, the SIP revision must include . . . specifically designated method(s) for each emission limitation"

To assist the States in complying with this policy, where applicable, the CTG documents cite test methods that can be used for determination of compliance with the applicable emission limits. In addition, the Emission Measurement Branch (EMB) of the Emission Standards and Engineering Division (ESED) has published test procedures that are applicable to source testing add-on control devices and for determining halogenated organics from stationary sources. State developed test procedures may also be used if they are determined to be consistent with those cited above.

The attached Table I (suggested by DSSE and reviewed by EMB) includes a listing of the Group I CTG documents, the document numbers, the applicable control options, the document citing test methods or procedures, and where copies of the referenced test methods or procedures can be obtained.

It is pointed out that Table I includes reference to several Group II CTGs, such as "tank trucks" and "leaks from petroleum refinery equipment." The test methods included in these CTGs provide means for determining fugitive emission leaks from piping or equipment associated with stage I service stations, bulk plants, bulk terminals, petroleum refineries, etc.

Regional offices should work with their States to ensure that enforceable test methods or procedures, such as those cited in Table I or their equivalent, are included in SIP revisions to satisfy conditions of approval or to otherwise obtain a fully approvable SIP.

Should you have any questions on this matter, please contact Bill Polglase (FTS 629-5226).

Attachment

cc: E. Reich, DSSE
G. Walsh, ESED

Attachment

TABLE I
TEST METHODS OR PROCEDURES FOR GROUP I CTGS

Industry	Group I CTG Document Number	Applicable Control Options
Cans, Coils, Paper Fabric, Automobiles and Light-Duty Trucks	EPA-450/2-77-008	LST ¹ Add-On ²
Metal Furniture	EPA-450/2-77-032	LST ¹ Add-On ²
Magnet Wire Coating	EPA-450/2-77-033	Add-On ² LST ¹
Large Appliance Coating	EPA-450/2-77-034	LST ¹
Bulk Terminals	EPA-450/2-77-026	RCA,R,A,T0 ⁴
Tank Trucks ⁹	EPA-450/2-77-051	Maintenance and Repair
Bulk Plants	EPA-450/2-77-035	Vapor Balance System ⁶
Service Stations - Stage I	Design Criteria Document (DCD)	Vapor Balance System ⁶
Fixed-Roof Tanks	EPA-450/2-77-036	Internal Floating Roof ⁷ Add-On ²
Petroleum Refineries		
1. Vacuum Producing Systems, Waste-water Separators, and Process Unit Turnarounds	EPA-450/2-77-025	Various Equipment Specifications
2. Leaks from Petroleum Refinery Equipment ⁹	EPA-450/2-78--036	Inspection, Monitoring and Maintenance

TABLE I
TEST METHODS OR PROCEDURES FOR GROUP I CTGS
(Continued)

Industry	Group I CTG Document Number	Applicable Control Options
Cutback Asphalt	EPA-450/2-77-037	Water Emulsion Solvent Content
Degreasing	EPA-450/2-77-022	Equipment/ Operating Specifications Carbon Adsorber

TABLE I
TEST METHODS OR PROCEDURES FOR GROUP I CTGS
(Continued)

Industry	Document Citing Test Method	Document May be Ordered From
Cans, Coils, Paper Fabric, Automobiles and Light-Duty Trucks	CTG-Appendix A	NTIS ³
	"Measurement of Volatile Organic Compounds," EPA 450/2-78-041	NTIS ³
Metal Furniture	CTG-pp. 5-1 to 5-5, Appendix A; also EPA 450/1-77-008	NTIS ³ (Both Documents)
	Same as above (Cans, Coils, Etc.)	NTIS ³
Magnet Wire Coating	Same as above (Cans, Coils, Etc.)	NTIS ³
	Same as above (Cans, Coils, Etc.)	NTIS ³
Large Appliance Coating	CTG-pp 5-1 to 5-4, Appendix A, also EPA-450/2-77-008	NTIS ³ (Both Documents)
Bulk Terminals	CTG Appendix A	NTIS ³
Tank Trucks *9	CTG, Appendix B	NTIS ³
Bulk Plants	Equipment Inspection, CTG p. 6-3	NTIS ³
	Leak Tests - Same as above (Tank)	NTIS ³
Service Stations - Stage I	Equipment Inspection, DCD pp. 3-6	ESED ⁵
	Leak Tests - Same as above	NTIS ³
Fixed-Roof Tanks	CTG p. 6-2	NTIS ³
	Same as above (Cans, Coils, Etc.)	NTIS ³

TABLE I
TEST METHODS OR PROCEDURES FOR GROUP I CTGS
(Continued)

Industry	Document Citing Test Method	Document May be Ordered From
Petroleum Refineries		
1. Vacuum Producing Systems, Waste-water Separators, and Process Unit Turnarounds	CTG p. 6-2	NTIS ³
2. Leaks from Petroleum Refinery Equipment *9	CTG, Appendix B	NTIS ³
Cutback Asphalt	Direct Observation by Inspector ASTM Distillation Test D-244	ASTM
Degreasing	CTG-pp. 3-31, 3-33, 3-35, 7-1 to 7-7 Draft Test Method	NTIS ³ OAQPS ⁸

¹ LST: Low Solvent Technology

² Add-on: Incineration, Carbon Adsorbers, Refrigeration Units, etc.

³ Order by Document No. from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (Nominal Fee Required)

⁴ RCA, R,A,TO: Refrigeration-Compression-Adsorption, Refrigeration, Adsorption, Thermal Oxidizers

⁵ Order from U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emission Standards and Engineering Division, Research Triangle Park, NC 27711. Document Title: "Design Criteria for Stage I Vapor Control System Gasoline Service Stations" November 1975

⁶ Visual inspection except for leaks

⁷ Visual inspection only

⁸ Order from: Office of Air Quality Planning and Standards, Test Support Section, MD-19, Emission Standards and Engineering Division, Research Triangle Park, NC 27711. Method Title: "Determination of Halogenated Organics from Stationary Sources" September 19, 1979

⁹ These industries are included in the Group II CTGs.