TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY
CHAPTER 100. AIR POLLUTION CONTROL

RULEMAKING ACTION:
EMERGENCY adoption
RULES:
Subchapter 39. Emission of Volatile Organic Compounds (VOCs) In Nonattainment Areas and Former Nonattainment Areas
Part 7. Specific Operations
252:100-39-47 [AMENDED]
Appendix N. Specialty Coatings VOC Content Limits [NEW]
AUTHORITY:
Environmental Quality Board; 27A O.S. §§ 2-2-101, 2-2-201 and Oklahoma Clean Air Act, 27A O.S. § 2-5-101, *et seq.*, esp. 2-5-106
DATES:
Comment period:
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March 15, 2002 through April 17, 2002
June 25, 2002
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June 25, 2002
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Expiration:
Effective through July 14, 2003 unless superseded by another rule or disapproved by the legislature
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None
INCORPORATIONS BY REFERENCE:
None
FINDING OF EMERGENCY:
The Environmental Quality Board finds that a compelling public interest necessitates the seeking of emergency certification of the rule being adopted today. The revision eliminates inconsistencies between the federal rule found at 40 CFR 63, Subpart GG and the requirements of OAC 252:100-39-47. The revision also replaces the cumbersome method of modifying an Alternate Reasonably Available Control Technology (ARACT) plan which currently requires a source-specific modification to the State Implementation Plan (SIP). EPA approval of a modification of the SIP can and has taken several years. Such a modification is currently required each time an aerospace facility uses a new coating. The revision to this rule provides flexibility that is sorely needed by the aerospace industry in Tulsa if it is to be competitive in the market place.

Aerospace facilities in Tulsa County that are directly affected by this rule have recommended emergency adoption of the proposed rule. They note that the current rule significantly hampers their ability to respond to rapidly changing market demands and to deploy new technologies, including those related to rapidly evolving national defense needs. An emergency rule would be effective about 9 months prior to the effective date of the permanent rule. The citizens and industry of Oklahoma should not have to wait that long for relief from the outdated requirements currently contained in the rule.

ANALYSIS:

In the past, the U.S. Environmental Protection Agency (EPA) designated Tulsa County a nonattainment area for the national ozone standard. The EPA required the State of Oklahoma to develop a plan to enable Tulsa County to achieve and maintain compliance with the ozone standard. As part of this plan, aerospace manufacturing and rework facilities in Tulsa County were required by state rule to reduce VOC emissions from coating operations by implementing Reasonably Available Control Technology (RACT). Although EPA has prepared presumptive RACTs for many industries and published them in Control Techniques Guidelines (CTG), at the time Tulsa was a nonattainment area for ozone, there was no federal presumptive RACT for the control of VOC emissions from this industry. Instead, each facility in the Tulsa area was required to develop its own plan for approval by the DEQ's predecessor and EPA in the form of a source-specific State Implementation Plan revision. These individual plans were known as ARACT. Section 47 of Subchapter 39 contains the requirements for individual ARACT plans.

Though Tulsa regained attainment status for ozone in 1990, Tulsa County aerospace manufacturing, rework, and repair operations with the potential to emit greater than 10 tons/year of VOC from coating operations remain subject to individual ARACT plans. In 1997 EPA established presumptive RACT for the aerospace manufacturing and rework industry. Because EPA's CTG is in the form of a guideline it requires redrafting in the format of an enforceable standard. The proposed changes to Section 47 of Subchapter 39 will replace the existing individual ARACTs with the requirements contained in EPA's CTG titled: Control of Volatile Organic Compounds Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations, EPA-453/R-97-004, December 1997. The proposed changes provide uniformity of treatment for all of the industries subject to the standard. The proposed changes also eliminate inconsistencies between the rule and aerospace NESHAP 40 CFR 63 subpart GG to which many of these same sources are subject. Because the individual ARACTs are cumbersome to amend and difficult to interpret, the proposed changes should result in a more enforceable rule.

In addition, a new Appendix N is proposed. Appendix N lists the

VOC content limits that constitute RACT for specialty coatings. The appendix also includes the formula used to calculate VOC content of specialty coatings when determining compliance with the VOC content limits.

CONTACT PERSON:

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PURSUANT TO THE ACTIONS DESCRIBED HEREIN, THE FOLLOWING EMERGENCY RULES ARE PROMULGATED AND EFFECTIVE UPON APPROVAL BY THE GOVERNOR AS SET FORTH IN 75 O.S., SECTION 253(D).

TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY

CHAPTER 100. AIR POLLUTION CONTROL

RULEMAKING ACTION:

PERMANENT final adoption

RULES:

Subchapter 39. Emission of Volatile Organic Compounds (VOCs) In Nonattainment Areas and Former Nonattainment Areas

Part 7. Specific Operations

252:100-39-47 [AMENDED]

Appendix N. Specialty Coatings VOC Content Limits [NEW]

AUTHORITY:

Environmental Quality Board; 27A O.S. §§ 2-2-101, 2-2-201 and Oklahoma Clean Air Act, 27A O.S. § 2-5-101, *et seq.*

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None

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None

ANALYSIS:

In the past, the U.S. Environmental Protection Agency (EPA) designated Tulsa County a nonattainment area for the national ozone standard. The EPA required the State of Oklahoma to develop a plan to enable Tulsa County to achieve and maintain compliance with the ozone standard. As part of this plan, aerospace manufacturing and rework facilities in Tulsa County were required by state rule to reduce VOC emissions from coating operations by implementing Reasonably Available Control Technology (RACT). Although EPA has prepared presumptive RACTs for many industries and published them in Control Techniques Guidelines (CTG), at the time Tulsa was a nonattainment area for ozone, there was no federal presumptive RACT for the control of VOC emissions from this industry. Instead, each facility in the Tulsa area was required to develop its own plan for approval by the DEQ's predecessor and EPA in the form of a source-specific State Implementation Plan revision. These individual plans were known as Alternate Reasonably Available Control Technology (ARACT). Section 47 of Subchapter 39 contains the requirements for individual ARACT plans.

Though Tulsa regained attainment status for ozone in 1990, Tulsa County aerospace manufacturing, rework, and repair operations with the potential to emit greater than 10 tons/year of VOC from coating operations remain subject to individual ARACT plans. In 1997 EPA established presumptive RACT for the aerospace manufacturing and rework industry. Because EPA's CTG is in the form of a guideline it requires redrafting in the format of an enforceable standard. The proposed changes to Section 47 of Subchapter 39 will replace the existing individual ARACTs with the requirements contained in EPA's CTG titled: Control of Volatile Organic Compounds Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations, EPA-453/R-97-004, December 1997. The proposed changes provide uniformity of treatment for all of the industries subject to the standard. The proposed changes also eliminate inconsistencies between the rule and aerospace NESHAP 40 CFR 63 subpart GG to which many of these same sources are subject. Because the individual ARACTs are cumbersome to amend and difficult to interpret, the proposed changes should result in a more enforceable rule.

In addition, a new Appendix N is proposed. Appendix N lists the VOC content limits that constitute RACT for specialty coatings. The appendix also includes the formula used to calculate VOC content of specialty coatings when determining compliance with the VOC content limits.

SUMMARY OF DIFFERENCES FROM ANALOGOUS FEDERAL RULES:

The proposed revisions are to insure that Section 47 of

Subchapter 39 is as consistent as possible with the analogous federal rule.

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PURSUANT TO THE ACTIONS DESCRIBED HEREIN, THE FOLLOWING RULES ARE CONSIDERED FINALLY ADOPTED AS SET FORTH IN 75 O.S., SECTION 308.1(A), WITH AN EFFECTIVE DATE OF JUNE 1, 2003.

SUBCHAPTER 39. EMISSION OF VOLATILE ORGANIC COMPOUNDS (VOCs) IN NONATTAINMENT AREAS AND FORMER NONATTAINMENT AREAS

PART 7. SPECIFIC OPERATIONS

252:100-39-47. Control of VOC emissions from aerospace industries coatings operations

(a) Applicability.

~~(1) This Section applies to all aerospace facilities located in Tulsa County. Sources once subject to this Section are always subject.~~

~~(2) This Section does not apply to individual coating formulations that, when aggregated, do not exceed 55 gal/yr for the facility.~~

~~(3) Facilities with a potential to emit 10 tons/year or less of VOC from coatings operations are exempt from this Section.~~

(1) Except as noted in OAC 252:100-39-47(a)(2) and (3), this Section applies to existing or new aerospace vehicle and component coating operations at aerospace manufacturing, rework, or repair facilities located in Tulsa County that have the potential to emit 10 TPY or more of VOC from coating operations. For purposes of this Section, coating operations include associated cleaning operations as specified in OAC 252:100-39-47(d)(4) and surface preparation.

(2) This Section does not apply to manufacturing, rework, or repair operations involving space vehicles or rework or repair operations performed on antique aerospace vehicles or components.

(3) This Section does not apply to the following activities: research and development, quality control, laboratory testing, and electronic parts and assemblies (except for cleaning and coating of completed assemblies).

(b) References to 40 CFR. References to the aerospace NESHAP 40 CFR 63 subpart GG refers to that subpart as it existed on July 1, 2001.

~~(b)~~ (c) Definitions. The following words and terms, when used in this Section, shall have the following meaning, unless the context clearly indicates otherwise. Additional definitions for terms used in this Section are found in § 63.742 and Appendix A of the aerospace NESHAP 40 CFR 63 subpart GG, which is adopted by reference in OAC 252:100-41-15(b).

~~(1) "Aerospace" means the industries, air bases and depots that manufacture, rework, or repair aircraft or military equipment components for either commercial or military customers.~~

~~(2) "Aircraft" means any machine designed to travel through the earth's atmosphere. This group includes but is not limited to airplanes, balloons, dirigibles, drones, helicopters, missiles, and rockets.~~

~~(3)~~ (1) "Alternate reasonably available control technology (ARACT)" means the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility as determined on a case-by-case basis.

~~(4) "Coating" means a material which covers a surface which alters the surface characteristics and from which VOCs can be emitted during the application and/or curing process.~~

~~(5) "CTG" means the Control Techniques Guidance Document "Control of Volatile Organic Emissions From Existing Stationary Sources, Volume VI: Surface Coating of Miscellaneous Metal Parts and Products," EPA No. 450/2-78-015.~~

~~(6) "Facility" means all of the pollutant-emitting activities that belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person or persons under common control.~~

~~(7) "Low VOC coating (LVOCC)" means a coating that contains less VOC than the conventional coatings used by the industry. Low VOC coatings include waterborne, higher solids, electrodeposition, and powder coatings.~~

(2) "Chemical milling maskant" means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or II etchant. Type I chemical milling maskants are used with a Type I etchant and Type II chemical milling maskants are used with a Type II etchant. This definition does not include bonding maskants, critical use and line sealer maskants, and seal coat maskants. Additionally, maskants that must be used with a combination of Type I or II etchants and any of the above types of maskants (i.e., bonding, critical use and line sealer, and seal coat) are not included. Maskants that are defined as specialty coatings are not included under this definition.

(3) "Operating parameter value" means a minimum or maximum value established for a control equipment or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has continued to comply with an applicable emission limitation.

~~(8)~~ (4) "Reasonably available control technology ~~(RACT)~~" or "RACT" means control technology that is reasonably available considering technological and economic feasibility and the need to impose such controls to attain and maintain a National Ambient Air Quality Standard.

(5) "Specialty coating" means a coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific

applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection.

~~(c) General requirements.~~

~~(1) All affected facilities shall develop an emissions reduction plan as set forth in 252:100-39-47(d). This plan, upon approval, shall constitute ARACT for that particular facility.~~

~~(2) ARACT must be installed and operating as provided in the approved plan no later than January 1, 1991 for existing facilities, unless additional phased compliance dates are approved in the plan.~~

~~(3) New and modified sources and coating applications not included in the plan are subject to the permit requirements set forth in 252:100-7 or 252:100-8, and will be submitted to EPA as source-specific SIP revisions, unless one of the following applies.~~

~~(A) The new coatings meet the presumptive norm of 3.5 pounds of VOC per gallon less water and exempt compounds.~~

~~(B) The total usage of the new coating does not exceed 55 gal/yr of each coating formulation.~~

~~(d) Emissions reduction plan.~~

~~(1) Plan development. Each plan shall include:~~

~~(A) a detailed, reasoned and exhaustive review of each source of emissions within the facility and the entire plant collectively;~~

~~(B) identification and quantification of emissions, in terms of pounds per day, of all VOC both before and after the application of ARACT;~~

~~(C) a detailed, innovative engineering effort directed toward finding alternative air management schemes that can be incorporated in order to abate emissions at costs which are reasonable;~~

~~(D) a consideration of the level of control that is achievable using available alternative coatings, to include LVOCC for every application;~~

~~(E) a demonstration of the level of control achievable using available add-on control devices which shall include, at a minimum, the feasibility/infeasibility of carbon adsorption, incineration/flaring, condensation, and a combination of carbon adsorption and incineration/flaring;~~

~~(F) a consideration of facility redesign, including recirculation, reduced air flows, consolidation of spray operations, and installation of common control devices for two or more separate coating operations;~~

~~(G) a consideration of alternative applications, to improve~~

~~transfer efficiency, including high-volume-low-pressure spray equipment, heated spray guns, and electrostatic spray equipment/powder coatings;~~

~~(H) an explanation why each source is not a typical coating source covered by the CTG as defined in 252:100-39-47(b);~~

~~(I) a cost/benefit analysis for all control technology considered; and,~~

~~(J) a detailed compliance schedule that includes the emission limit and/or control techniques for each emission sourcewhich together with other relevant considerations, shall be set forth in a separate section of the plan that summarizes and outlines ARACT for the referenced facility.~~

~~(2) Submission of emission reduction plans. Three copies of the emissions reduction plan shall be submitted to the Division and one shall be submitted to EPA, Region VI.~~

~~(3) Action on plan. Within 30 days of submittal, or of May 25, 1990, whichever is later, the Division shall, considering any comments submitted by EPA, either approve, modify or disapprove the plan.~~

~~(4) Public hearing. The Division shall, at the first meeting of the Air Quality Council following the approval, modification, or disapproval of the plan, present at public hearing, the staff's findings and ARACT determination.~~

~~(5) Final approval. Upon consideration of comments and recommendations from the Council, the owner or operator of the affected facility, the public, and EPA, the DEQ shall, within ten (10) days after the public hearing, issue a final ARACT approval. Final approval shall constitute ARACT for the affected facility.~~

~~(6) Compliance. The owner or operator shall be responsible for installation and operational provisions of the approved ARACT. Any violation of the plan or of its provisions shall constitute a violation of this Section.~~

~~(7) Submission of SIP revision. Upon approval by the DEQ, the ARACT determination shall be submitted to EPA as a SIP revision.~~

~~(e) Reporting and recordkeeping.~~

~~(1) Recordkeeping requirements. The owner or operator shall maintain:~~

~~(A) a material safety data sheet which documents the VOC content, composition, solids content, VOC density and other relevant information regarding each coating and VOC available for use in the affected surface coating processes;~~

~~(B) information detailing the operational parameters of the coating process sufficient to determine continuous compliance with the applicable control limits;~~

~~(C) information as to the amounts of each type coating used and the amounts of VOC used for dilution in each coating type for each coating operation;~~

~~(D) daily usage records for all coatings used that do not comply with the applicable control limits specified in the plan; and,~~

~~(E) records of any monitoring and testing conducted at an affected facility in accordance with the provisions specified in 252:100-39-47(f).~~

~~(2) Method of calculating VOC content in coatings. Records required by 252:100-39-47(e)(1)(A) through 252:100-39-47(e)(1)(E) detailing VOC in pounds per gallon of coating (less water and exempt compounds) shall be calculated as follows:~~

~~VOC in lbs/gal of coating = Wv-Ww-Wx / 1-Vw-Vx where:~~

~~(A) Wv = weight of all volatiles;~~

~~(B) Ww = weight of water;~~

~~(C) Wx = weight of exempt compounds;~~

~~(D) Vw = volume fraction of water; and,~~

~~(E) Vx = volume fraction of exempt compounds.~~

~~(3) Maintenance of records. Records required by 252:100-39-47(e)(1)(A) through 252:100-39-47(e)(1)(E) shall be maintained for at least two years and shall be made available upon request by representatives of the AQD or EPA.~~

~~(4) Alternative recordkeeping provision. Alternatively to 252:100-39-47(e)(1) through 252:100-39-47(e)(3), an equivalent recordkeeping provision that satisfies the substantive requirements of 252:100-39-47(e)(1) through 252:10-39-47(e)(3) may be approved under the plan.~~

~~(f) Testing and monitoring.~~

~~(1) Testing. The Division may require testing at the expense of the owner or operatorto establish emission from any particular source or sources. Test methods may include 1-4, 18, 24, 24A, 25A, 25B found in the Appendix A of 40 CFR Part 60, including the procedures found at 40 CFR 60.444.~~

~~(2) Monitoring. Monitoring shall be required of any owner or operator who uses add-on control equipment for compliance. Such monitoring shall accurately measure and record operational parameters of all required control devices to ensure the proper functioning of those devices in accordance with design specifications, including:~~

~~(A) the exhaust temperature of direct flame incinerators and/or gas temperature immediately upstream and downstream of any catalyst bed;~~

~~(B) the total amount of VOCs recovered by carbon adsorption or other VOC recovery system during a calendar month; and,~~

~~(C) the dates and reasons for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities. (252:100-39-47 Effective May 25, 1990)~~

(d) Standards and requirements.

(1) VOC content of coatings.

(A) VOC content limits for specialty coatings.

(i) No specialty coatings that contain VOC in excess of the limits specified in Appendix N of this Chapter shall be applied to aerospace vehicles or components. The VOC content of specialty coatings shall include any VOC-containing materials added to the original coating supplied by the manufacturer.

(ii) The VOC content limits listed in Appendix N of this Chapter do not apply to touch-up, aerosol, and DOD "classified" coatings.

(B) VOC content limits for primers and topcoats. Each coating operation utilizing primers and topcoats (including self-priming topcoats) that are not specialty coatings listed in Appendix N of this Chapter, shall comply with the VOC content limits contained in § 63.745(c)(2) and (c)(4) of the aerospace NESHAP 40 CFR 63, subpart GG.

(C) VOC content limits for chemical milling maskants. Each chemical milling maskant operation utilizing chemical milling maskants (Type I/II) that are not specialty coatings listed in Appendix N of this Chapter, shall comply with the VOC content limits contained in § 63.747(c)(2) and the exemptions in § 63,747(c)(3) of the aerospace NESHAP 40 CFR 63 subpart GG.

(D) Exemption of low volume coating usage. The requirements of OAC 252:100-39-47(d)(1) do not apply to the use of primers, topcoats, chemical milling maskants, and specialty coatings for which the annual total of each separate formulation used at the facility does not exceed 50 gal and the combined annual total of all such primers, topcoats, chemical milling maskants, and specialty coatings used at the facility does not exceed 200 gal. Primers, topcoats, and chemical milling maskants exempt under OAC 252:100-39-47(a) are not included in the 50 and 200 gal limits.

(E) Compliance determination.

(i) Coatings used at facilities subject to this Section shall be deemed in compliance when the VOC content of these coatings comply with the requirements of OAC 252:100-39-47(d)(1).

(ii) For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. Where such a method also inadvertently measures compounds that are exempt solvents, an owner or operator may exclude these exempt solvents when determining compliance with an emission standard.

(2) Application equipment.

(A) Each primer or topcoat application operation subject to this Section shall comply with the requirements and exemptions specified in § 63.745(f) of the aerospace NESHAP 40 CFR 63 subpart GG.

(B) Specialty coatings are not subject to the equipment requirements of OAC 252:100-39-47(d)(2)(A).

(3) Control equipment.

(A) Control equipment efficiency. Each owner or operator may comply with the provisions of OAC 252:100-39-47(d)(1) by using approved air pollution control equipment provided that the control equipment has a combined VOC emissions capture and control equipment efficiency of 81% or greater by weight.

(B) Exemption. Except for specialty coatings, any primer or topcoat operation that complies with the control requirements in § 63.745(d) or any chemical milling maskant operation that complies with the control requirements of § 63.747(d) of the aerospace NESHAP 40 CFR 63 subpart GG is deemed to be in compliance with the requirements of OAC 252:100-39-47(d)(3).

(C) Compliance determination. When control equipment is used to comply with the coating standards in OAC 252:100-39-47(d)(1), compliance shall be determined in accordance with § 63.749(d) and (h) of the aerospace NESHAP 40 CFR 63 subpart GG.

(4) Housekeeping measures and solvent cleaning operations.

(A) Housekeeping measures and solvent cleaning operations (hand-wipe cleaning, spray gun cleaning, and flush cleaning) subject to this Section shall comply with the requirements and exemptions contained in § 63.744 of the aerospace NESHAP 40 CFR 63, subpart GG.

(B) Housekeeping measures and solvent cleaning operations subject to OAC 252:100-39-47(d)(4)(A) shall be considered in compliance with subparagraph (A) when the requirements in § 63.749(c) of the aerospace NESHAP 40 CFR 63 subpart GG are met.

(5) General standards. The handling and transfer of primers, topcoats, and chemical milling maskants to or from containers, tanks, vats, vessels, and piping systems shall be handled in a manner that minimizes spills.

(e) Monitoring.

(1) Each owner or operator who chooses to comply with the VOC content limits of OAC 252:100-39-47(d)(1)(A), (B), and /or (C) by using approved air pollution control equipment shall submit a monitoring plan that specifies the applicable operating parameter value, or range of values, to ensure ongoing compliance with OAC 252:100-39-47(d)(3) of this Section. The monitoring device shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications.

(2) Each owner or operator using an enclosed spray gun cleaner shall visually inspect the seals and all other potential sources of leaks at least once per month. Each inspection shall occur while the spray gun cleaner is in operation.

(3) Except for specialty coatings, any source that complies

with the monitoring requirements of § 63.751 of the aerospace NESHAP 40 CFR 63 subpart GG is deemed to be in compliance with the requirements of OAC 252:100-39-47(e).

(f) Recordkeeping requirements.

(1) Coating operations.

(A) Each owner or operator of primer and topcoat application operations or chemical milling maskant application operations shall comply with the recordkeeping requirements of § 63.752 of the aerospace NESHAP 40 CFR 63 subpart GG as appropriate.

(B) Each owner or operator of coating operations using specialty coatings listed in Appendix N of this Chapter shall comply with the following recordkeeping requirements.

(i) They shall maintain a current list of coatings in use showing category and as-applied VOC content of each coating.

(ii) They shall record coating usage on an annual basis. Methods used may include, but are not limited to, inventory records.

(2) Cleaning operations. Each owner or operator subject to the solvent cleaning operation requirements in OAC 252:100-39-47(d)(4) shall:

(A) for hand-wipe cleaning operations keep the records required by § 63.752(b)(2), (3), and/or (4) of the aerospace NESHAP 40 CFR 63 subpart GG as appropriate;

(B) for enclosed spray gun cleaning operations keep the records required by § 63.752(b)(5) of the aerospace NESHAP 40 CFR 63 subpart GG.

(3) Control equipment. Each owner or operator using control equipment under OAC 252:100-39-47(d)(3) shall record monitoring parameters as specified in the monitoring plan required under OAC 252:100-39-47(e)(1).

(4) Exemptions. Except for specialty coatings listed in Appendix N of this Chapter, any source that complies with the recordkeeping requirements of § 63.752 of the aerospace NESHAP, 40 CFR 63 subpart GG is deemed to be in compliance with the requirements of OAC 252:100-39-47(f).

(g) Test methods.

(1) Coatings which are not waterborne (water-reducible). For coatings which are not waterborne, determine the VOC content of each formulation (less water and less exempt solvents) as applied using manufacturer's supplied data or Method 24 of 40 CFR 60, Appendix A. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis.

(2) Waterborne (water-reducible) coatings. For waterborne coatings, manufacturer's supplied data alone can be used to determine the VOC content of each formulation.

(3) Cleaning solvents. Solvent composition and vapor pressure for cleaning solvents used in hand-wipe cleaning operations subject to OAC 252:100-39-47(d)(4)(A) shall be determined as specified in § 63.750(a) and (b) of the aerospace NESHAP 40 CFR 63 subpart GG.

(4) Control equipment. Measurements of VOC emissions from control equipment as allowed by OAC 252:100-39-47(d)(3) shall be conducted in accordance with EPA Methods 18, 25, and/or 25A of 40 CFR 60, Appendix A.

(5) Exemptions. Except for specialty coatings, any source that complies with the test method requirements of § 63.750 of the aerospace NESHAP 40 CFR 63 subpart GG is deemed to be in compliance with the requirements of this subsection.

(h) Compliance date.

(1) The requirements of this Section shall be considered RACT for control of VOC emissions from vehicle and component coating operations at aerospace manufacturing, rework, or repair facilities in Tulsa County upon the effective date of this revision. New or modified sources shall be in compliance upon start-up.

(2) Except for specialty coatings, any source that complies with the compliance dates and determinations of § 63.749 of the aerospace NESHAP, 40 CFR 63 subpart GG is deemed to be in compliance with the requirements of OAC 252:100-39-47(h).

(3) Owners or operators of facilities with specialty coatings that are compliant under the ARACT plan, but are not compliant with the VOC content limits contained in Appendix N of this Chapter will have six (6) months from the effective date of this revision to find an alternate coating or install controls. Owners or operators of such facilities shall notify the DEQ in writing of any such noncompliant specialty coatings within 90 days of the effective date of this revision. This notification shall include a list of the noncompliant specialty coatings, the VOC content of each coating, and the quantity of each coating used per month and per year.

(i) Revocation of ARACT plans. Existing ARACT plans for aerospace facilities located in Tulsa County shall become null and void upon the effective date of this revision.

APPENDIX N. SPECIALTY COATINGS VOC CONTENT LIMITS [NEW]

The following table is for use only in OAC 252:100-39-47.

SPECIALTY COATINGS VOC CONTENT LIMITS

Coating Type	Limit	
	lb/gal	g/l[1]
Ablative Coating	5.0	600
Adhesion Promoter	7.4	890
Adhesive Bonding Primers:		
Cured at 250°F or below	7.1	850
Cured above 250°F	8.6	1,030
Adhesives:		
Commercial Interior Adhesive	6.3	760
Cyanoacrylate Adhesive	8.5	1,020
Fuel Tank Adhesive	5.2	620
Nonstructural Adhesive	3.0	360
Rocket Motor Bonding Adhesive	7.4	890
Rubber-based Adhesive	7.1	850
Structural Autoclavable Adhesive	0.5	60
Structural Nonautoclavable Adhesive	7.1	850
Antichafe Coating	5.5	660
Bearing Coating	5.2	620
Caulking and Smoothing Compounds	7.1	850
Chemical Agent-Resistant Coating	4.6	550
Clear Coating	6.0	720
Commercial Exterior Aerodynamic Structure Primer	5.4	650
Compatible Substrate Primer	6.5	780
Corrosion Prevention Compound	5.9	710
Cryogenic Flexible Primer	5.4	645
Cryoprotective Coating	5.0	600
Dry Lubricative Material	7.3	880

Coating Type	Limit	
	lb/gal	g/l[1]
Electric or Radiation-Effect Coating	6.7	800
Electrostatic Discharge and Electromagnetic Interference (EMI)Coating	6.7	800
Elevated-Temperature Skydrol-Resistant Commercial Primer	6.2	740
Epoxy Polyamide Topcoat	5.5	660
Fire-Resistant (Interior) Coating	7.3	800
Flexible Primer	5.3	640
Flight-Test Coatings		
Missile or Single Use Aircraft	3.5	420
All Other	7.0	840
Fuel Tank Coating	6.0	720
High-Temperature Coating	7.1	850
High-Temperature Radiation-Effect Coating	8.5	1,020
Insulation Covering	6.2	740
Intermediate Release Coating	6.4	750
Lacquer	6.9	830
Maskants:		
Bonding Maskant	10.02	1,230
Critical Use and Line Sealer Maskant	8.5	1,020
Seal Coat Maskant	10.2	1,230
Metallized Epoxy Coating	6.2	740
Mold Release	6.5	780
Optical Anti-Reflective Coating	6.3	750
Part Marking Coating	7.1	850
Pretreatment Coating	6.5	780
Rain Erosion-Resistant Coating	7.1	850
Rocket Motor Nozzle Coating	5.5	660
Scale Inhibitor	7.3	880
Screen Print Ink	7.0	840

Coating Type	Limit	
	lb/gal	g/l[1]
Sealants:		
Extrudable/Rollable/Brushable Sealant	2.3	280
Sprayable Sealant	5.0	600
Silicone Insullation Material	7.1	850
Solid Film Lubricant	7.3	880
Specialized Function Coating	7.4	890
Temporary Protective Coating	2.7	320
Thermal Control Coating	6.7	800
Wet Fastener Installation Coating	5.6	675
Wing Coating	7.1	850

[1]Coating limits expressed in terms of mass (grams) of VOC per volume (liters) of coating less water and less exempt solvent using Equation 1 below.

EQUATION 1

Grams of VOC per liter of coating (less water and less exempt solvent) shall be calculated using the following formula:

$$g/l = (W_s - W_w - W_{es})/(V_s - V_w - V_{es})$$

Where:

W_s = weight of total volatiles in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_s = volume of coating in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters