ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
RENUMBERING, AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board adopts an order to **renumber** NR 465 subch. III Table 3 and Table 4; to **amend** NR 460 Appendix NNNN, 465.26(2)(a)5., 465 subch. III Table 4 footnote [a], 484.03(intro.), 484.04(intro.), (9) and (24), 484.10(intro.), (22), (39e) and (55m) and 484.11(intro.) and (1) Table 6A; and to **create** NR 400.03(4)(js), 460 Appendix MMMM and Appendix PPPP, 465 subchs. IV and V, 484.04(24g) and (24r) and 484.10(55c), (55i), (55L) and (56m) relating to national emission standards for hazardous air pollutants for the surface coating of plastic parts and products and of miscellaneous metal parts and products.

AM-07-05

Summary Prepared by the Department of Natural Resources

Statutes interpreted: s. 285.11(6), Stats.

Statutory authority: ss. 227.11(2)(a) and 285.11(1), Stats.

Explanation of agency authority: Section 285.27(2), Stats., requires that the Department promulgate National Emission Standards for Hazardous Air Pollutants (NESHAP) by rule. In addition, since these two NESHAP each affect more than ten facilities in Wisconsin, promulgation into state rule is consistent with the Maximum Achievable Control Technology (MACT) Streamlining Policy approved by the Natural Resources Board in 1996.

Related statute or rule: Chapter NR 465, subchs. I and III. Some facilities which conduct surface coating operations may need to comply with more than one of the surface coating regulations in ch. NR 465.

Plain language analysis: The US EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the surface coating of miscellaneous metal parts and products, effective on January 2, 2004 (40 CFR Part 63, Subpart MMMM), and the NESHAP for the surface coating of plastic parts and products, effective on April 19, 2004 (40 CFR Part 63, Subpart PPPP). The two NESHAP establish maximum achievable control technology (MACT) requirements for these two source categories. The proposed rules will incorporate these two NESHAP into the Wisconsin Administrative Code.

Summary of, and comparison with, existing or proposed federal regulation: As noted above, the federal NESHAP for the two source categories are existing federal regulations. While some changes to the federal rule language and organization were made to accommodate state administrative rule format, no substantive changes were made, and the state rules are essentially identical to the federal NESHAP.

Comparison with similar rules in adjacent states: The federal regulations are in effect in every state in the nation, and all affected sources in any state are required to comply with the federal rules. The U.S. Environmental Protection Agency has delegated authority to many states to enforce the federal NESHAP regulations, which generally means that those states adopt the federal regulations as state regulations. Thus, the NESHAP regulations in adjacent states, if any, are identical to the federal regulations and the proposed Wisconsin rules.

Summary of factual data and analytical methodologies: Since the Department is merely adopting federal regulations, we have not compiled any factual data nor used any analytical methodologies. Please see the federal documentation supporting the development and promulgation of the federal regulations at http://www.epa.gov/ttn/atw/misc/miscpg.html and http://www.epa.gov/ttn/atw/plastic/plasticpg.html.

Analysis and supporting documentation used to determine any effect on small business or in preparation of an economic impact report: Cost estimates and economic impact analyses were prepared by the US Environmental Protection Agency when they promulgated these regulations. See http://www.epa.gov/ttn/atw/misc/miscpg.html and http://www.epa.gov/ttn/atw/plastic/plasticpg.html.

Anticipated costs incurred by the private sector: Because the federal regulations are in effect and all affected sources must comply with them, no additional costs will be incurred by the private sector as a result of the promulgation of the state rules.

Effect on small business: Because the federal regulations are in effect and all affected sources must comply with them, there will be no additional effect on small business as a result of the promulgation of the state rules.

Incorporation by reference: The consent of the Attorney General and the Revisor of Statutes will be requested for the incorporation by reference of new test methods in ch. NR 484.

Agency contact person (including e-mail address and telephone number):
Eric Mosher - 608-266-3010, Eric.Mosher@dnr.state.wi.us

SECTION 1. NR 400.03(4)(js) is created to read:

NR 400.03(4)(js) "NESHAP" - national emission standards for hazardous air pollutants

SECTION 2. NR 460 Appendix MMMM is created to read:

Chapter NR 460

Appendix MMMM

General Provisions Applicable to Chapter NR 465 Subchapter V

The general provisions of this chapter listed under the column heading "Reference" apply to sources subject to ch. NR 465 subch. V only if a Yes appears in the same row under the column heading "Applies to Chapter NR 465 Subchapter V?". Certain provisions in other chapters which correspond to federal provisions in 40 CFR part 63 Subpart A are also included in the Reference column.

Reference	Subject	Applies to Chapter NR 465 Subchapter V?	Explanation
NR 2.19 and 2.195	Availability of Information and Confidentiality	Yes	
NR 406	Construction and Reconstruction	Yes	
NR 407.04(1)(b)3.	Construction Permit Initial Filing Dates for New or Modified Sources	Yes	
NR 460.02	Definitions	Yes	Additional definitions are specified in s. NR 465.42.
NR 460.03	Units and Abbreviations	Yes	
NR 460.04(1)	Prohibited Activities	Yes	
NR 460.04(2)	Circumvention/ Severability	Yes	
NR 460.05(1)	Compliance With Standards and Maintenance Requirements – Applicability	Yes	

Appendix MMMM (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter V

Reference	Subject	Applies to Chapter NR 465 Subchapter V?	Explanation
NR 460.05(2)	Compliance Dates for New and Reconstructed Sources	Yes	Section NR 465.41(4) specifies the compliance dates.
NR 460.05(3)	Compliance Dates for Existing Sources	Yes	Section NR 465.41(4) specifies the compliance dates.
NR 460.05(4)(a)	Operation and Malfunctions	Yes	
NR 460.05(4)(c)	Startup, Shutdown, and Malfunction Plan	Yes	Only sources using an add-on control device to comply with the standard must complete startup, shutdown, and malfunction plans.
NR 460.05(5)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	Applies only to sources using an add-on control device to comply with the standard.
NR 460.05(6)	Compliance With Opacity/Visible Emission Standards	No	Subchapter V does not establish opacity standards and does not require continuous opacity monitoring systems.
NR 461.05(7)	Extension of Compliance	Yes	
NR 460.06(1)(a)	Performance Test Requirements - Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in s. NR 465.48(5), (6) and (7).
NR 460.06(1)(b)	Performance Test Requirements - Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. Section NR 465.48(1) specifies the schedule for performance test requirements that are earlier than those specified in s. NR 460.06(1)(b).
NR 460.06(2)-(4)	Performance Test Requirements - Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
NR 460.06(5)	Performance Test Requirements - Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
NR 460.06(6) and (7)	Performance Test Requirements - Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
NR 460.07(1)(a) and (b)	Monitoring Requirements - Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in s. NR 465.48(9).
NR 460.07(1)(c)	Additional Monitoring Requirements	No	Subchapter V does not have monitoring requirements for flares.
NR 460.07(2)	Conduct of Monitoring	Yes	

Appendix MMMM (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter V

Reference	Subject	Applies to Chapter NR 465 Subchapter V?	Explanation
NR 460.07(3)(a)-(c)	Continuous Monitoring System (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operation and maintenance are specified in s. NR 465.48(9).
NR 460.07(3)(e)	Continuous Opacity Monitoring System (COMS)	No	Subchapter V does not have opacity or visible emission standards.
NR 460.07(3)(f)	CMS Requirements	No	Section NR 465.48(9) specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
NR 460.07(3)(g)	CMS Out-of-Control Periods	Yes	
NR 460.07(3)(h)	CMS Out-of-Control Periods and Reporting	No	Section NR 465.45(2) requires reporting of CMS out-of-control periods.
NR 460.07(4) and (5)	Quality Control Program and CMS Performance Evaluation	No	Subchapter V does not require the use of continuous emissions monitoring systems.
NR 460.07(6)(a)-(d)	Use of an Alternative Monitoring Method	Yes	
NR 460.07(6)(e)	Alternative to Relative Accuracy Test	No	Subchapter V does not require the use of continuous emissions monitoring systems.
NR 460.07(7)	Data Reduction	No	Section NR 465.48(8) and (9) specify monitoring data reduction.
NR 460.08(1)-(4)	Notification Requirements	Yes	
NR 460.08(5)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
NR 460.08(6)	Notification of Visible Emission/Opacity Test	No	Subchapter V does not have opacity or visible emission standards.
NR 460.08(7)	Additional Notification When Using CMS	No	Subchapter V does not require the use of continuous emissions monitoring systems.
NR 460.08(8)	Notification of Compliance Status	Yes	Section NR 465.45(1) specifies the dates for submitting the notification of compliance status.
NR 460.08(9)	Adjustment of Submittal Deadlines	Yes	
NR 460.08(10)	Change in Previous Information	Yes	
NR 460.09(1)	Recordkeeping and Reporting - Applicability and General Information	Yes	
NR 460.09(2)(a)	General Recordkeeping Requirements	Yes	Additional requirements are specified in s. NR 465.45(3) and (4).
NR 460.09(2)(b)1.-5.	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standard.

Appendix MMMM (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter V

Reference	Subject	Applies to Chapter NR 465 Subchapter V?	Explanation
NR 460.09(2)(b)6.-11.		Yes	
NR 460.09(2)(b)12.	Records	Yes	
NR 460.09(2)(b)13.		No	Subchapter V does not require the use of continuous emissions monitoring systems.
NR 460.09(2)(b)14.		Yes	
NR 460.09(3)(a)1.-3.	Additional recordkeeping Requirements for Sources with CMS	Yes	
NR 460.09(3)(a)4.-5.		No	The same records are required in s. NR 465.45(2)(a)7.
NR 460.09(3)(a)6.-10.		Yes	
NR 460.09(4)(a)	General Reporting Requirements	Yes	Additional requirements are specified in s. NR 465.45(2).
NR 460.09(4)(b)	Report of Performance Test Results	Yes	Additional requirements are specified in s. NR 465.45(2)(b).
NR 460.09(4)(c)	Reporting Opacity or Visible Emissions Observations	No	Subchapter V does not require opacity or visible emissions observations.
NR 460.09(4)(d)	Progress Reports for Sources With Compliance Extensions	Yes	
NR 460.09(4)(e)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
NR 460.09(5)(a) and (b)	Additional CMS Reports	No	Subchapter V does not require the use of continuous emissions monitoring systems.
NR 460.09(5)(c)	Excess Emissions/CMS Performance Reports	No	Section NR 465.45(2)(b) specifies the contents of periodic compliance reports.
NR 460.09(5)(d)	COMS Data Reports	No	Subchapter V does not specify requirements for opacity or COMS.
NR 460.09(6)	Recordkeeping/Reporting Waiver	Yes	
NR 460.10	Control Device Requirements/Flares	No	Subchapter V does not specify use of flares for compliance.
NR 484	Incorporation by Reference	Yes	

SECTION 3. NR 460 Appendix NNNN is amended to read:

Chapter NR 460

Appendix NNNN

General Provisions Applicable to Chapter NR 465 Subchapter III

The general provisions of this chapter listed under the column heading "Reference" apply to sources subject to ch. NR 465 subch. III only if a Yes appears in the same row under the column heading "Applies to Chapter NR 465 Subchapter III?". Certain provisions in other chapters which correspond to federal provisions in 40 CFR part 63 Subpart A are also included in the Reference column.

Reference	Subject	Applies to Chapter NR 465 Subchapter III?	~~Comment~~ Explanation
~~N~~NR 2.19 and 2.195	Availability of Information and Confidentiality	Yes	
NR 406	Construction and Reconstruction	Yes	
NR 407.04(1)(b)3.	Construction Permit Initial Filing Dates for New or Modified Sources	Yes	
NR 460.02	Definitions	Yes	Additional definitions in s. NR 465.22.
NR 460.03	Units and Abbreviations	Yes	
NR 460.04	Prohibited Activities and Circumvention	Yes	
NR 460.05(1)	Compliance With Standards and Maintenance Requirements - Applicability	Yes	
NR 460.05(2) and (3)	Compliance Dates for New, Reconstructed and Existing Sources	Yes	Section NR 465.21(4) specifies the compliance dates.
NR 460.05(4)(a) and (b)	Operation and Maintenance	Yes	
NR 460.05(4)(c)	SSMP	Yes	Only sources using an add-on control device to comply with the standard shall complete startup, shutdown and malfunction plans.
NR 460.05(5)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	Applies only to sources using an add-on control device to comply with the standards.
NR 460.05(6)	Compliance With Opacity/Visible Emission standards	No	Chapter NR 465 subch. III does not establish opacity standards and does not require COMS.
NR 460.05(7)	Extension of Compliance	Yes	
NR 460.06(1)(a)	Performance Test Requirements - Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in s. NR 465.28(5) to (7).
NR 460.06(1)(b)	Performance Test Requirements - Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section NR 465.28(1) specifies the schedule for performance test requirements that are earlier than those specified in s. NR 460.06(1)(b).
NR 460.06(2) to (4)	Performance Test Requirements - Notification, Quality Assurance Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.

Appendix NNNN (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter III

Reference	Subject	Applies to Chapter NR 465 Subchapter III?	Comment Explanation
NR 460.06(5)	Performance Test Requirements - Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
NR 460.06(6) and (7)	Performance Test Requirements - Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard.
NR 460.07(1)(a) and (b)	Monitoring Requirements - Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in s. NR 465.28(9).
NR 460.07(1)(c)	Additional Monitoring Requirements	No	Chapter 465 subch. III does not have monitoring requirements for flares.
NR 460.07(2)	Conduct of Monitoring	Yes	
NR 460.07(3)(a) to (c)	Continuous Monitoring Systems (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in s. NR 465.28(9).
NR 460.07(3)(d)	CMS	No	Section NR 465.28(9) specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
NR 460.07(3)(e)	COMS	No	Chapter NR 465 subch. III does not have opacity or visible emission standards.
NR 460.07(3)(f)	CMS Requirements	No	Section NR 465.28(9) specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
NR 460.07(3)(g)	CMS Out-of-Control Periods	Yes	
NR 460.07(3)(h)	CMS Out-of-Control Periods and Reporting	No	Section NR 465.25(2) requires reporting of CMS out-of-control periods.
NR 460.07(4) and (5)	Quality Control Program and CMS Performance Evaluation	No	Chapter NR 465 subch. III does not require the use of continuous emissions monitoring systems.
NR 460.07(6)(a) to (d)	Use of an Alternative Monitoring Method	Yes	
NR 460.07(6)(e)	Alternative to Relative Accuracy Test	No	Chapter NR 465 subch. III does not require the use of continuous emissions monitoring systems.
NR 460.07(7)	Data Reduction	No	Section NR 465.28(8) and (9) specify monitoring data reduction.
NR 460.08(1) to (4)	Notification Requirements	Yes	
NR 460.08(5)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
NR 460.08(6)	Notification of Visible Emissions/Opacity Test	No	Chapter NR 465 subch. III does not have opacity or visible emission standards.

Appendix NNNN (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter III

Reference	Subject	Applies to Chapter NR 465 Subchapter III?	Comment Explanation
NR 460.08(7)	Additional Notifications When Using CMS	No	Chapter NR 465 subch. III does not require the use of continuous emissions monitoring systems.
NR 460.08(8)	Notification of Compliance Status	Yes	Section NR 465.25(1) specifies the dates for submitting the notification of compliance status.
NR 460.08(9) and (10)	Adjustment of Submittal Deadlines and Change in Previous Information	Yes	
NR 460.09(1)	Recordkeeping/Reporting - Applicability and General Information	Yes	
NR 460.09(2)(a)	General Recordkeeping Requirements	Yes	Additional requirements are specified in s. NR 465.25(3) and (4).
NR 460.09(2)(b)1. to 5.	Recordkeeping Relevant to Startup, Shutdown and Malfunction Periods and CMS	Yes	Requirements for startup, shutdown and malfunction records only apply to add-on control devices used to comply with the standard.
NR 460.09(2)(b)6. to 12.		Yes	
NR 460.09(2)(b)13.		No	Chapter NR 465 subch. III does not require the use of continuous emissions monitoring systems.
NR 460.09(2)(b)14.		Yes	
NR 460.09(2)(c)	Recordkeeping Requirements for Applicability Determinations	Yes	
NR 460.09(3)(a)1. to 3.	Additional Recordkeeping Requirements for Sources with CMS	Yes	
NR 460.09(3)(a)4. and 5.		No	The same records are required in s. NR 465.25(2)(a)7.
NR 460.09(3)(a)6. to 10. and (b)		Yes	
NR 460.09(4)(a)	General Reporting Requirements	Yes	Additional requirements are specified in s. NR 465.25(2).
NR 460.09(4)(b)	Report of Performance Test Results	Yes	Additional requirements are specified in s. NR 465.25(2)(b).
NR 460.09(4)(c)	Reporting Opacity or Visible Emissions Observations	No	Chapter NR 465 subch. III does not require opacity or visible emissions observations.
NR 460.09(4)(d)	Progress Reports for Sources With Compliance Extensions	Yes	
NR 460.09(4)(e)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
NR 460.09(5)(a) and (b)	Additional CMS Reports	No	Chapter NR 465 subch. III does not require the use of continuous emissions monitoring systems.
NR 460.09(5)(c)	Excess Emissions/CMS Performance Reports	No	Section NR 465.25(2)(b) specifies the contents of periodic compliance reports.
NR 460.09(5)(d)	COMS Data Reports	No	Chapter 465 subch. III does not specify requirements for opacity or COMS.
NR 460.09(6)	Recordkeeping/Reporting Waiver	Yes	
NR 460.10	Control Device Requirements/Flares	No	Chapter 465 subch. III does not specify use of flares for compliance.
NR 484	Incorporation by Reference	Yes	

SECTION 4. NR 460 Appendix PPPP is created to read:

Chapter NR 460

Appendix PPPP

General Provisions Applicable to Chapter NR 465 Subchapter IV

The general provisions of this chapter listed under the column heading "Reference" apply to sources subject to ch. NR 465 subch. IV only if a Yes appears in the same row under the column heading "Applies to Chapter NR 465 Subchapter IV?". Certain provisions in other chapters which correspond to federal provisions in 40 CFR part 63 Subpart A are also included in the Reference column.

Reference	Subject	Applies to Chapter NR 465 Subchapter IV?	Explanation
NR 2.19 and 2.195	Availability of Information and Confidentiality	Yes	
NR 406	Construction and Reconstruction	Yes	
NR 407.04(1)(b)3.	Construction Permit Initial Filing Dates for New or Modified Sources	Yes	
NR 460.02	Definitions	Yes	Additional definitions are specified in s. NR 465.32.
NR 460.03	Units and Abbreviations	Yes	
NR 460.04(1)	Prohibited Activities	Yes	
NR 460.04(2)	Circumvention/ Severability	Yes	
NR 460.05(1)	Compliance With Standards and Maintenance Requirements - Applicability	Yes	
NR 460.05(2)	Compliance Dates for New and Reconstructed Sources	Yes	Section NR 465.31(4) specifies the compliance dates.
NR 460.05(3)	Compliance Dates for Existing Sources	Yes	Section NR 465.31(4) specifies the compliance dates.
NR 460.05(4)(a)	Operation and Malfunctions	Yes	
NR 460.05(4)(c)	Startup, Shutdown and Malfunction Plan	Yes	Only sources using an add-on control device to comply with the standard must complete startup, shutdown and malfunction plans.
NR 460.05(5)	Compliance Except During Startup, Shutdown and Malfunction	Yes	Applies only to sources using an add-on control device to comply with the standard.
NR 460.05(6)	Compliance With Opacity/Visible Emission Standards	No	Subchapter IV does not establish opacity standards and does not require continuous opacity monitoring systems.
NR 461.05(7)	Extension of Compliance	Yes	
NR 460.06(1)(a)	Performance Test Requirements - Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in s. NR 465.38(5), (6) and (7).

Appendix PPPP (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter IV

Reference	Subject	Applies to Chapter NR 465 Subchapter IV?	Explanation
NR 460.06(1)(b)	Performance Test Requirements - Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. Section NR 465.38(1) specifies the schedule for performance test requirements that are earlier than those specified in s. NR 460.06(1)(b).
NR 460.06(2)-(4)	Performance Test Requirements - Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
NR 460.06(5)	Performance Test Requirements - Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
NR 460.06(6) and (7)	Performance Test Requirements - Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
NR 460.07(1)(a) and (b)	Monitoring Requirements - Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in s. NR 465.38(9).
NR 460.07(1)(c)	Additional Monitoring Requirements	No	Subchapter IV does not have monitoring requirements for flares.
NR 460.07(2)	Conduct of Monitoring	Yes	
NR 460.07(3)(a)-(c)	Continuous Monitoring System (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operation and maintenance are specified in s. NR 465.38(9).
NR 460.07(3)(d)	CMS	No	Section NR 465.38(9) specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
NR 460.07(3)(e)	Continuous Opacity Monitoring System (COMS)	No	Subchapter IV does not have opacity or visible emission standards.
NR 460.07(3)(f)	CMS Requirements	No	Section NR 465.38(9) specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
NR 460.07(3)(g)	CMS Out-of-Control Periods	Yes	
NR 460.07(3)(h)	CMS Out-of-Control Periods and Reporting	No	Section NR 465.35(2) requires reporting of CMS out-of-control periods.
NR 460.07(4) and (5)	Quality Control Program and CMS Performance Evaluation	No	Subchapter IV does not require the use of continuous emissions monitoring systems.

Appendix PPPP (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter IV

Reference	Subject	Applies to Chapter NR 465 Subchapter IV?	Explanation
NR 460.07(6)(a)-(d)	Use of an Alternative Monitoring Method	Yes	
NR 460.07(6)(e)	Alternative to Relative Accuracy Test	No	Subchapter IV does not require the use of continuous emissions monitoring systems.
NR 460.07(7)	Data Reduction	No	Section NR 465.38(8) and (9) specify monitoring data reduction.
NR 460.08(1)-(4)	Notification Requirements	Yes	
NR 460.08(5)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
NR 460.08(6)	Notification of Visible Emission/Opacity Test	No	Subchapter IV does not have opacity or visible emission standards.
NR 460.08(7)	Additional Notification When Using CMS	No	Subchapter IV does not require the use of continuous emissions monitoring systems.
NR 460.08(8)	Notification of Compliance Status	Yes	Section NR 465.35(1) specifies the dates for submitting the notification of compliance status.
NR 460.08(9)	Adjustment of Submittal Deadlines	Yes	
NR 460.08(10)	Change in Previous Information	Yes	
NR 460.09(1)	Recordkeeping and Reporting - Applicability and General Information	Yes	
NR 460.09(2)(a)	General Recordkeeping Requirements	Yes	Additional requirements are specified in s. NR 465.35(3) and (4).
NR 460.09(2)(b)1.-5.	Recordkeeping Relevant to Startup, Shutdown and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown and malfunction records only apply to add-on control devices used to comply with the standard.
NR 460.09(2)(b)6.-11.		Yes	
NR 460.09(2)(b)12.	Records	Yes	
NR 460.09(2)(b)13.		No	Subchapter IV does not require the use of continuous emissions monitoring systems.
NR 460.09(2)(b)14.		Yes	
NR 460.09(2)(c)	Recordkeeping Requirements for Applicability Determinations	Yes	
NR 460.09(3)(a)1.-3.	Additional recordkeeping Requirements for Sources with CMS	Yes	
NR 460.09(3)(a)4.-5.		No	The same records are required in s. NR 465.35(2)(a)7.

Appendix PPPP (Continued)
General Provisions Applicable to Chapter NR 465 Subchapter IV

Reference	Subject	Applies to Chapter NR 465 Subchapter IV?	Explanation
NR 460.09(3)(a)6.-10.		Yes	
NR 460.09(4)(a)	General Reporting Requirements	Yes	Additional requirements are specified in s. NR 465.35(2).
NR 460.09(4)(b)	Report of Performance Test Results	Yes	Additional requirements are specified in s. NR 465.35(2)(b).
NR 460.09(4)(c)	Reporting Opacity or Visible Emissions Observations	No	Subchapter IV does not require opacity or visible emissions observations.
NR 460.09(4)(d)	Progress Reports for Sources With Compliance Extensions	Yes	
NR 460.09(4)(e)	Startup, Shutdown and Malfunction Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
NR 460.09(5)(a) and (b)	Additional CMS Reports	No	Subchapter IV does not require the use of continuous emissions monitoring systems.
NR 460.09(5)(c)	Excess Emissions/CMS Performance Reports	No	Section NR 465.35(2)(b) specifies the contents of periodic compliance reports.
NR 460.09(5)(d)	COMS Data Reports	No	Subchapter IV does not specify requirements for opacity or COMS.
NR 460.09(6)	Recordkeeping/Reporting Waiver	Yes	
NR 460.10	Control Device Requirements/Flares	No	Subchapter IV does not specify use of flares for compliance.
NR 484	Incorporation by Reference	Yes	

SECTION 5. NR 465.26(2)(a)5. is amended to read:

NR 465.26(2)(a)5. When test data and manufacturer's data for solvent blends are not available, use the default values for mass fraction of organic HAP for these solvent blends listed in ~~Table 3 or 4~~ Table 2 or 3 of this subchapter. You shall use the values in ~~Table 3~~ Table 2 of this subchapter for all solvent blends that match ~~Table 3~~ Table 2 entries, and you may only use ~~Table 4~~ Table 3 of this subchapter if the solvent blends in the materials you use do not match any of the solvent blends in ~~Table 3~~ Table 2 of this subchapter, and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed in ~~Table 3 or 4~~ Table 2 or 3 of this subchapter, the Method 311 results will take precedence. Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which shall be counted toward the total organic HAP mass fraction of the materials.

SECTION 6. NR 465 subch. III Table 3 and Table 4 are renumbered NR 465 subch. III Table 2 and Table 3.

SECTION 7. NR 465 subch. III Table 3 footnote [a], as renumbered, is amended to read:

NR 465 subch. III Table 3 footnote [a] Use this table only if the solvent blend does not match any of the solvent blends in ~~Table 3~~ Table 2 and you only know whether the blend is aliphatic or aromatic.

SECTION 8. NR 465 subch. IV to follow Table 3 (as renumbered) of NR 465 subch. III is created to read:

Subchapter IV

Surface Coating of Plastic Parts and Products

NR 465.31 What this subchapter covers. (1) WHAT IS THE PURPOSE OF THIS SUBCHAPTER? This subchapter establishes national emission standards for hazardous air pollutants (NESHAP) for plastic parts and products surface coating facilities. This subchapter also establishes requirements to demonstrate initial and continuous compliance with the emission limits in s. NR 465.33(1).

Note: This subchapter is based on the federal regulations contained in 40 CFR part 63 Subpart PPPP, as last revised April 26, 2004.

(2) AM I SUBJECT TO THIS SUBCHAPTER? (a) Plastic parts and products includes plastic components of the following types of products as well as the products themselves: motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products. Except as provided in par. (c), the source category to which this subchapter applies is the surface coating of any plastic parts or products, as described in subd. 1., and includes the sub-categories listed in subds. 2. to 5.

1. Surface coating is the application of coating to a substrate. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with hand-held, non-refillable aerosol containers, touch-up markers, marking pens or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subchapter.

2. The general use coating sub-category includes all surface coating operations that are not automotive lamp coating operations, thermoplastic olefin (TPO) coating operations or assembled on-road vehicle coating operations.

3. The automotive lamp coating sub-category includes the surface coating of plastic components of the body of an exterior automotive lamp, including head lamps, tail lamps, turn signals and marker lamps; typical coatings used are reflective agent coatings and clear topcoats. This sub-category does not include the coating of interior automotive lamps, such as dome lamps and instrument panel lamps.

4. The TPO coating sub-category includes the surface coating of TPO substrates; typical coatings used are adhesion promoters, color coatings, clear coatings and topcoats. The coating of TPO substrates on fully assembled on-road vehicles is not included in the TPO coating sub-category.

5. The assembled on-road vehicle coating sub-category includes surface coating of fully assembled motor vehicles and trailers intended for on-road use, including automobiles, light-duty trucks, heavy duty trucks and buses that have been repaired after a collision or otherwise repainted; fleet delivery trucks; and motor homes and other recreational vehicles, including camping trailers and fifth wheels. This sub-category also includes the incidental coating of parts that are removed from the fully assembled on-road vehicle to facilitate concurrent coating of all parts associated with the vehicle. The assembled on-road vehicle coating sub-category does not include the surface coating of plastic parts prior to their attachment to an on-road vehicle on an original equipment manufacturer's assembly line. The assembled on-road vehicle coating sub-category also does not include the use of adhesives, sealants and caulks used in assembling on-road vehicles. Body fillers used to correct small surface defects and rubbing compounds used to remove surface scratches are not considered coatings subject to this subchapter.

(b) You are subject to this subchapter if you own or operate a new, reconstructed or existing affected source, as defined in sub. (3), that uses 378 liters (100 gallons) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of plastic parts and products defined in par. (a); and that is a major source, is located at a major source or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating in s. NR 465.32(26) in determining whether you use 378 liters (100 gallons) per year, or more, of coatings in the surface coating of plastic parts and products.

(c) This subchapter does not apply to surface coating or a coating operation that meets any of the criteria of subds. 1. to 16.

1. A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to s. NR 465.46(2)(a).

2. Surface coating operations that occur at research or laboratory facilities, or are part of janitorial, building and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

3. The surface coating of plastic parts and products performed on-site at installations owned or operated by the armed forces of the United States, including the Coast Guard and the National Guard of any state, or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the armed forces of the United States, including the Coast Guard and the National Guard of any state.

4. Surface coating where plastic is extruded onto plastic parts or products to form a coating.

5. Surface coating of magnet wire.

6. In-mold coating operations or gel coating operations in the manufacture of reinforced plastic composite parts that meet the applicability criteria for reinforced plastics composites production in 40 CFR part 63, Subpart WWWW.

7. Surface coating of plastic components of wood furniture that meet the applicability criteria for wood furniture manufacturing in s. NR 465.01(1).

8. Surface coating of plastic components of large appliances that meet the applicability criteria for large appliance surface coating in s. NR 465.21(2).

9. Surface coating of plastic components of metal furniture that meet the applicability criteria for metal furniture surface coating in 40 CFR part 63, Subpart RRRR.

10. Surface coating of plastic components of wood building products that meet the applicability criteria for wood building products surface coating in 40 CFR part 63, Subpart QQQQ.

11. Surface coating of plastic components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework in 40 CFR part 63, Subpart GG.

12. Surface coating of plastic parts intended for use in an aerospace vehicle or component using specialty coatings as defined in 40 CFR part 63, Subpart GG, Appendix A.

13. Surface coating of plastic components of ships that meet the applicability criteria for shipbuilding and ship repair in 40 CFR part 63, Subpart II.

14. Surface coating of plastic using a web coating process that meets the applicability criteria for paper and other web coating in 40 CFR part 63, Subpart JJJJ.

15. Surface coating of fiberglass boats or parts of fiberglass boats, including the use of assembly adhesives, where the facility meets the applicability criteria for boat manufacturing, 40 CFR part 63, Subpart VVVV, except where the surface coating of the boat is a post-mold coating operation performed on personal watercraft or parts of personal watercraft. This subchapter does apply to post-mold coating operations performed on personal watercraft and parts of personal watercraft.

16. Surface coating of plastic components of automobiles and light-duty trucks that meet the applicability criteria in 40 CFR 63.3082(b) of the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, at a facility that meets the applicability criteria in 40 CFR 63.3081(b).

(d) If your facility meets the applicability criteria in 40 CFR 63.3081(b) of the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, and you perform surface coating of plastic parts or products that meets both the applicability criteria in 40 CFR 63.3082(c) and the applicability criteria of this subchapter, then, for the surface coating of any or all of your plastic parts or products that meets the applicability criteria in 40 CFR 63.3082(c), you may choose to comply with the requirements of 40 CFR part 63, Subpart IIII, in lieu of complying with this subchapter. Surface coating operations on plastic parts or products not intended for use in automobiles or light-duty trucks, such as parts for motorcycles or lawn mowers, cannot be made part of your affected source under 40 CFR part 63, Subpart IIII.

(e) If you own or operate an affected source that meets the applicability criteria of this subchapter and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in 40 CFR part 63 or this chapter, you may choose to comply as specified in subd. 1., 2. or 3.

1. You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

2. You may comply with the emission limit in s. NR 465.33(1) representing the predominant surface coating activity at your facility, as determined according to subd. 2.a. and b. However, you may not establish assembled on-road vehicle or automotive lamp coating operations as the predominant activity. You may not consider any surface coating activity that is subject to the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, in determining the predominant surface coating activity at your facility.

a. If a surface coating operation accounts for 90% or more of the surface coating activity at your facility, then that is the predominant activity and compliance with the emission limits specified in s. NR 465.33(1) of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you shall include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than one percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than one percent of coating activities need not be included in the determination of predominant activity but shall be included in the compliance calculation.

b. You shall use kilograms (kg) (pounds (lb)) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content. The determination of predominant activity shall accurately reflect current and projected coating operations and shall be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content shall be approved by the administrator. You may use data for any reasonable time period of at least one year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the administrator. You shall determine the predominant activity at your facility and submit the results of that determination with the initial notification required by s. NR 465.35(1)(b). You shall also determine predominant activity annually and include the determination in the next semi-annual compliance report required by s. NR 465.35(2)(a).

Note: An example of parameters other than coating consumption and mass solids content for estimating the relative mass of coating solids used would be design specifications for the parts or products coated and the number of items produced.

3. You may comply with a facility-specific emission limit calculated according to s. NR 465.33(1)(c)2. from the relative amount of coating activity that is subject to each emission limit in s. NR 465.33(1)(a) and (b). If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limits in s. NR 465.33(1)(a) and (b) for all surface coating operations constitutes compliance with this subchapter and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you shall include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than one percent of total coating activities at your facility. You may not consider any surface coating activity that is subject to the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, in determining a

facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than one percent of total coating activities need not be included in the calculation of the facility-specific emission limit but shall be included in the compliance calculations.

(3) WHAT PARTS OF MY PLANT DOES THIS SUBCHAPTER COVER? (a) This subchapter applies to each new, reconstructed and existing affected source within each of the 4 sub-categories listed in sub. (2)(a).

(b) The affected source is the collection of all of the items listed in subds. 1. to 4. that are used for surface coating of plastic parts and products within each sub-category.

1. All coating operations.

2. All storage containers and mixing vessels in which coatings, thinners and other additives, and cleaning materials are stored or mixed.

3. All manual and automated equipment and containers used for conveying coatings, thinners and other additives, and cleaning materials.

4. All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new source if it meets the criteria in subd. 1. and the criteria in either subd. 2. or 3.

1. You commenced the construction of the source after December 4, 2002 by installing new coating equipment.

2. The new coating equipment is used to coat plastic parts and products at a source where no plastic parts surface coating was previously performed.

3. The new coating equipment is used to perform plastic parts and products coating in a sub-category that was not previously performed.

(d) An affected source is reconstructed if you meet the criteria as defined in s. NR 460.02(32).

(e) An affected source is existing if it is not new or reconstructed.

(4) WHEN DO I HAVE TO COMPLY WITH THIS SUBCHAPTER? The date by which you shall comply with this subchapter is called the compliance date. The compliance date for each type of affected source is specified in pars. (a) to (c). The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in ss. NR 465.36(1), 465.37(1) and 465.38(1).

(a) For a new or reconstructed affected source, the compliance date is the applicable date in subd. 1. or 2.

1. If the initial startup of your new or reconstructed affected source is on or before April 19, 2004, the compliance date is April 19, 2004.

2. If the initial startup of your new or reconstructed affected source occurs after April 19, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is April 19, 2007.

(c) For an area source that increases its emissions or its potential to emit so that it becomes a major source of HAP emissions, the compliance date is specified in subds. 1. and 2.

1. For any portion of the source that becomes a new or reconstructed affected source subject to this subchapter, the compliance date is the date of initial startup of the affected source or April 19, 2004, whichever is later.

2. For any portion of the source that becomes an existing affected source subject to this subchapter, the compliance date is the date one year after the area source becomes a major source or April 19, 2007, whichever is later.

(d) You shall meet the notification requirements in s. NR 465.35(1) according to the dates specified in that subsection and in ch. NR 460. Some of the notifications need to be submitted before the compliance dates described in pars. (a) to (c).

NR 465.32 Definitions that apply to this subchapter. For terms not defined in this section, the definitions contained in chs. NR 400 and 460 apply to the terms in this subchapter, with definitions in ch. NR 460 taking precedence over definitions in ch. NR 400. If this section defines a term which is also defined in ch. NR 400 or 460, the definition in this section applies in this subchapter. In this subchapter:

(1) "Additive" means a material that is added to a coating after purchase from a supplier, such as catalysts, activators and accelerators.

(2) "Add-on control" means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

(3) "Adhesive" or "adhesive coating" means any chemical substance that is applied for the purpose of bonding 2 surfaces together. Products used on humans and animals, adhesive tape, contact paper or any other product with an adhesive incorporated onto or in an inert substrate are not considered adhesives under this subchapter.

(4) "Assembled on-road vehicle coating" means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use, including

components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles, including camping trailers and fifth wheels. Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the automobiles and light-duty trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants and caulks used in assembling on-road vehicles.

(5) "Automotive lamp coating" means any coating operation in which coating is applied to the surface of some component of the body of an exterior automotive lamp, including the application of reflective argent coatings and clear topcoats. Exterior automotive lamps include head lamps, tail lamps, turn signals, brake lights and side marker lights. Automotive lamp coating does not include any coating operation performed on an assembled on-road vehicle.

(6) "Capture device" means a hood, enclosure, room, floor sweep or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

(7) "Capture efficiency" or "capture system efficiency" means the portion, expressed as a percentage, of the pollutants from an emission source that is delivered to an add-on control device.

(8) "Capture system" means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flash-off, drying or curing. As used in this subchapter, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

(9) "Cleaning material" means a solvent used to remove contaminants and other materials, such as dirt, grease, oil and dried or wet coating, from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

(10) "Coating" means a material applied to a substrate for decorative, protective or functional purposes. These materials include paints, sealants, liquid plastic coatings, caulks, inks, adhesives and masking agents. Decorative, protective or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not

considered coatings for the purposes of this subchapter. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride in solution, also referred to as a plastisol.

(11) "Coating operation" means equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried coating; to apply coating to a substrate and to dry or cure the coating after application; or to clean coating operation equipment. A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with hand-held, non-refillable aerosol containers, touch-up markers or marking pens is not a coating operation for the purposes of this subchapter.

(12) "Coatings solids" means the nonvolatile portion of the coating that makes up the dry film.

(13) "Continuous parameter monitoring system" or "CPMS" means the total equipment that may be required to meet the data acquisition and availability requirements of this subchapter, used to sample, condition, if applicable, analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

(14) "Controlled coating operation" means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

(15) "Deviation" means any instance in which an affected source subject to this subchapter, or an owner or operator of an affected source, does any of the following:

(a) Fails to meet any requirement or obligation established by this subchapter, including any emission limit or operating limit or work practice standard.

(b) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subchapter and that is included in the operating permit for any affected source required to obtain an operating permit.

(c) Fails to meet any emission limit, or operating limit, or work practice standard in this subchapter during startup, shutdown or malfunction, regardless of whether or not the failure is permitted by this subchapter.

(16) "Emission limit" means the aggregate of all requirements associated with a compliance option including emission limit, operating limit and work practice standard.

(17) "Enclosure" means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

(18) "Exempt compound" means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in s. NR 400.02(162).

(19) "Facility maintenance" means the routine repair or renovation, including the surface coating, of the tools, equipment, machinery and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

(20) "General use coating" means any coating operation that is not an automotive lamp, thermoplastic olefin or assembled on-road vehicle coating operation.

(21) "Hobby shop" means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

(22) "Initial startup" means the first time equipment is brought on line in a facility.

(23) "Manufacturer's formulation data" means data on a material, such as a coating, that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in s. NR 465.36(2). Manufacturer's formulation data may include information on density, organic HAP content, volatile organic matter content and coating solids content.

(24) "Mass fraction of coating solids" means the ratio of the mass of solids, also known as the mass of nonvolatiles, to the mass of a coating in which it is contained; kg (lb) of coating solids per kg (lb) of coating.

(25) "Mass fraction of organic HAP" means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg (lb) of organic HAP per kg (lb) of material.

(26) "Month" means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

(27) "Non-HAP coating" means, for the purposes of this subchapter, a coating that contains no more than 0.1% by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0% by mass for any other individual HAP.

(28) "Organic HAP content" means the mass of organic HAP emitted per mass of coating solids used for a coating calculated using Equation 1 of s. NR 465.36(2). The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic

HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

(29) "Permanent total enclosure" or "PTE" means a permanently installed enclosure that meets the criteria of Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

(30) "Personal watercraft" means a boat which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

(31) "Plastic part and product" means any piece or combination of pieces of which at least one has been formed from one or more resins. These pieces may be solid, porous, flexible or rigid.

(32) "Protective oil" means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes lubricating oils, evaporative oils, those that evaporate completely, and extrusion oils.

(33) "Reactive adhesive" means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70% of the liquid components of the system, excluding water, react during the process.

(34) "Research or laboratory facility" means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

(35) "Responsible official" has the meaning given in s. NR 400.02(136).

(36) "Surface preparation" means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

(37) "Temporary total enclosure" means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).

(38) "Thermoplastic olefin" or "TPO" means polyolefins which are blends of polypropylene, polyethylene and its copolymers. This also includes blends of TPO with polypropylene and polypropylene alloys, including

thermoplastic elastomer (TPE), TPE polyurethane (TPU), TPE polyester (TPEE), TPE polyamide (TPAE) and thermoplastic elastomer polyvinyl chloride (TPVC).

(39) "Thermoplastic olefin coating" means any coating operation in which the coatings are components of a system of coatings applied to a TPO substrate, including adhesion promoters, primers, color coatings, clear coatings and topcoats. Thermoplastic olefin coating does not include the coating of TPO substrates on assembled on-road vehicles.

(40) "Thinner" means an organic solvent that is added to a coating after the coating is received from the supplier.

(41) "Total volatile hydrocarbon" or "TVH" means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A to 204F in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

(42) "Uncontrolled coating operation" means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

(43) "Wastewater" means water that is generated in a coating operation and is collected, stored or treated prior to being discarded or discharged.

(44) "You" or "your" means the owner or operator of a facility that applies coatings to plastic parts or products.

NR 465.33 Emission limits. (1) WHAT EMISSION LIMITS MUST I MEET? (a) For a new or reconstructed affected source, you shall limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in subds. 1. to 4., except as specified in par. (c), determined according to the requirements in s. NR 465.36(2), 465.37(2) or 465.38(2).

1. For each new or reconstructed general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

2. For each new or reconstructed automotive lamp coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

3. For each new or reconstructed thermoplastic olefin coating affected source, limit organic HAP emissions to no more than 0.22 kg (0.22 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

4. For each new or reconstructed assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

(b) For an existing affected source, you shall limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in subds. 1. to 4., except as specified in par. (c), determined according to the requirements in s. NR 465.36(2), 465.37(2) or 465.38(2).

1. For each existing general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

2. For each existing automotive lamp coating affected source, limit organic HAP emissions to no more than 0.45 kg (0.45 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

3. For each existing thermoplastic olefin coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

4. For each existing assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) of organic HAP emitted per kg (lb) of coating solids used during each 12-month compliance period.

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the sub-category emission limits specified in par. (a) or (b), you may comply separately with each sub-category emission limit or comply using one of the alternatives in subd. 1. or 2.

1. If the general use or TPO surface coating operations subject to only one of the emission limits specified in par. (a)1. or 3. or (b)1. or 3. account for 90% or more of the surface coating activity at your facility, then compliance with that emission limit for all surface coating operations constitutes compliance with the other applicable emission limits. You shall use kilograms or pounds of solids used as a measure of relative surface coating activity over a

representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content. The determination of predominant activity shall accurately reflect current and projected coating operations and shall be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content shall be approved by the administrator. You may use data for any reasonable time period of at least one year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the administrator. You shall determine the predominant activity at your facility and submit the results of that determination with the initial notification required by s. NR 465.35(1)(b). Additionally, you shall determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by s. NR 465.35(2)(a).

Note: An example of parameters other than coating consumption and mass solids content for estimating the relative mass of coating solids used would be design specifications for the parts or products coated and the number of items produced.

2. You may calculate and comply with a facility-specific emission limit as described in subd. 2.a. to c. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limits in pars. (a) and (b) for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you shall include coating activities that meet the applicability criteria of the other sub-categories and constitute more than one percent of total coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than one percent of coating activities need not be included in the determination of predominant activity but shall be included in the compliance calculation.

a. You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in s. NR 465.35(1)(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

b. Use Equation 1 of this subsection to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period:

$$\text{Facility - Specific Emission Limit} = \frac{\sum_{i=1}^{n} (\text{Limit}_i)(\text{Solids}_i)}{\sum_{i=1}^{n} (\text{Solids}_i)} \qquad \text{(Equation 1)}$$

where:

Facility-specific emission limit is the facility-specific emission limit for each 12-month compliance period, kg (lb) of organic HAP per kg (lb) of coating solids used

$Limit_i$ is the new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) of organic HAP per kg (lb) of coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit shall be in the same units.

$Solids_i$ is the kg (lb) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. You may estimate the mass of coating solids used from parameters other than coating consumption and mass solids content. The use of parameters other than coating consumption and mass solids content shall be approved by the administrator.

n is the number of different coating operations included in the facility-specific emission limit

Note: An example of parameters other than coating consumption and mass solids content for estimating the relative mass of coating solids used would be design specifications for the parts or products coated and the number of items produced.

c. If you need to convert an emission limit in another surface coating NESHAP from kg (lb) of organic HAP per liter (gallon) of coating solids used to kg (lb) of organic HAP per kg (lb) of coating solids used, you shall use the default solids density of 1.50 kg solids per liter of coating solids (12.5 lb of solids per gallon of coating solids).

(2) WHAT ARE MY OPTIONS FOR MEETING THE EMISSION LIMITS? You shall include all coatings, thinners and other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in sub. (1). To make this determination, you shall use at least one of the 3 compliance options listed in pars. (a) to (c). You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you shall document this switch as required by s. NR 465.35(3)(c), and you shall report it in the next semiannual compliance report required in s. NR 465.35(2).

(a) *Compliant material option.* You shall meet all the requirements of s. NR 465.36 to demonstrate compliance with the applicable emission limit in sub. (1) using this option. To use this option, you shall demonstrate that the organic HAP content of each coating used in the coating operation or operations is less than or equal to the applicable emission limit in sub. (1), and that each thinner or other additive, and cleaning material used contains no organic HAP. (b) *Emission rate without add-on controls option.* You shall meet all the requirements of s. NR 465.37 to demonstrate compliance with the emission limit in sub. (1) using this option. To use this option, you shall demonstrate that, based on the coatings, thinners and other additives, and cleaning materials used in the coating operation or operations, the organic HAP emission rate for the coating operation or operations is less than or equal to the applicable emission limit in sub. (1), calculated as a rolling 12-month emission rate and determined on a monthly basis.

(c) *Emission rate with add-on controls option.* You shall meet all the requirements of s. NR 465.38 to demonstrate compliance with the emission limits in sub. (1), the operating limits in sub. (3) and the work practice standards in sub. (4) using this option. To use this option, you shall demonstrate that, based on the coatings, thinners and other additives, and cleaning materials used in the coating operation or operations, and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation or operations is less than or equal to the applicable emission limit in sub. (1), calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you shall also demonstrate that all emission capture systems and add-on control devices for the coating operation or operations meet the operating limits required in sub. (3), except for solvent recovery systems for which you conduct liquid-liquid material balances according to s. NR 465.38(2)(j), and that you meet the work practice standards required in sub. (4).

(3) WHAT OPERATING LIMITS MUST I MEET? (a) For any coating operation or operations on which you use the compliant material option in sub. (2)(c) or the emission rate without add-on controls option in sub. (2)(b), you are not required to meet any operating limits.

(b) For any controlled coating operation or operations on which you use the emission rate with add-on controls option in sub. (2)(c), except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to s. NR 465.38(2)(j), you shall meet the operating limits specified in Table 1 of this subchapter. These operating limits apply to the emission capture and control systems on the coating operation or operations for

which you use this option, and you shall establish the operating limits during the performance test according to the requirements in s. NR 465.38(8). You shall meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 of this subchapter, or wish to monitor an alternative parameter and comply with a different operating limit, you shall apply to the administrator for approval of alternative monitoring under 40 CFR 63.8(f).

(4) WHAT WORK PRACTICE STANDARDS MUST I MEET? (a) For any coating operation or operations on which you use the compliant material option in sub. (2)(a) or the emission rate without add-on controls option in sub. (2)(b), you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option in sub. (2)(c), you shall develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing and conveying of coatings, thinners and other additives, and cleaning materials used in, and waste materials generated by the controlled coating operations for which you use this option; or you shall meet an alternative standard as provided in par. (c). The plan shall specify practices and procedures to ensure that, at a minimum, the elements specified in subds. 1. to 5. are implemented.

1. All organic-HAP-containing coatings, thinners and other additives, cleaning materials, and waste materials shall be stored in closed containers.

2. Spills of organic-HAP-containing coatings, thinners and other additives, cleaning materials, and waste materials shall be minimized.

3. Organic-HAP-containing coatings, thinners and other additives, cleaning materials, and waste materials shall be conveyed from one location to another in closed containers or pipes.

4. Mixing vessels which contain organic-HAP-containing coatings and other materials shall be closed except when adding to, removing or mixing the contents.

5. Emissions of organic HAP shall be minimized during cleaning of storage, mixing and conveying equipment.

(c) As provided in 40 CFR 63.6(g), the U.S. environmental protection agency may choose to grant you permission to use an alternative to the work practice standards in this subsection.

NR 465.34 General compliance requirements. (1) WHAT ARE MY GENERAL REQUIREMENTS FOR COMPLYING WITH THIS SUBCHAPTER? (a) You shall be in compliance with the emission limits in this subchapter as specified in subds. 1. and 2.

1. Any coating operation for which you use the compliant material option or the emission rate without add-on controls option shall be, as specified in s. NR 465.33(2)(a) and (b), in compliance with the applicable emission limit in s. NR 465.33(1) at all times.

2. Any coating operation for which you use the emission rate with add-on controls option shall be, as specified in s. NR 465.33(2)(c), in compliance with the emission limits specified in subd. 2.a. to c.

a. The coating operation shall be in compliance with the applicable emission limit in s. NR 465.33(1) at all times except during periods of startup, shutdown and malfunction.

b. The coating operation shall be in compliance with the operating limits for emission capture systems and add-on control devices required by s. NR 465.33(2) at all times except during periods of startup, shutdown and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to s. NR 465.38(2)(j).

c. The coating operation shall be in compliance with the work practice standards in s. NR 465.33(4) at all times.

(b) You shall always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subchapter, according to the provisions in s. NR 460.05(4)(a)1.

(c) If your affected source uses an emission capture system and add-on control device, you shall develop and implement a written startup, shutdown and malfunction plan according to the provisions in s. NR 460.05(4)(c). The plan shall address the startup, shutdown and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan shall also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

(2) WHAT PARTS OF THE GENERAL PROVISIONS APPLY TO ME? You shall comply with the applicable general provisions requirements in ch. NR 460. Appendix PPPP in ch. NR 460 shows which parts of the general provisions in ch. NR 460 apply to you.

NR 465.35 Notifications, reports and records. (1) WHAT NOTIFICATIONS MUST I SUBMIT? (a) *General*. You shall submit the notifications in ss. NR 460.06(2), 460.07(6)(c) and 460.08(2) to (5) and (8) that apply to you by the dates specified in those sections, except as provided in pars. (b) and (c).

(b*) Initial notification*. You shall submit the initial notification required by s. NR 460.08(2) for a new or reconstructed affected source no later than 120 days after initial startup. For an existing affected source, you shall submit the initial notification no later than one year after April 19, 2004. If you are using compliance with the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, as provided for under s. NR 465.31(2)(d) to constitute compliance with this subchapter for any or all of your plastic parts coating operations, then you shall include a statement to this effect in your initial notification, and no other notifications are required under this subchapter in regard to those plastic parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under s. NR 465.31(2)(e)2. to constitute compliance with this subchapter for your plastic parts coating operations, then you shall include a statement to this effect in your initial notification, and no other notifications are required under this subchapter in regard to those plastic parts coating operations.

(c) *Notification of compliance status.* You shall submit the notification of compliance status required by s. NR 460.08(8) no later than 30 calendar days following the end of the initial compliance period described in s. NR 465.36(1), 465.37(1) or 465.38(1) that applies to your affected source. The notification of compliance status shall contain the information specified in subds. 1. to 11. and in s. NR 460.08(8).

1. Company name and address.

2. Statement by a responsible official with that official's name, title and signature, certifying the truth, accuracy and completeness of the content of the report.

3. Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in s. NR 465.36(1), 465.37(1) or 465.38(1) that applies to your affected source.

4. Identification of the compliance option or options specified in s. NR 465.33(2) that you used on each coating operation in the affected source during the initial compliance period.

5. Statement of whether or not the affected source achieved the emission limits in s. NR 465.33(1) for the initial compliance period.

6. If you had a deviation, include the information in subd. 6.a. and b.

a. A description and statement of the cause of the deviation.

b. If you failed to meet the applicable emission limit in s. NR 465.33(1), include all the calculations you used to determine the kg (lb) of organic HAP emitted per kg (lb) of coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

7. For each of the data items listed in subd. 7.a. to d. that is required by the compliance options you used to demonstrate compliance with the emission limit in s. NR 465.33(1), include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to s. NR 465.36(2)(a), (b) or (c). You do not need to submit copies of any test reports.

a. Mass fraction of organic HAP for one coating, for one thinner or other additive, and for one cleaning material.

b. Mass fraction of coating solids for one coating.

c. Density for one coating, one thinner or other additive, and one cleaning material, except that if you use the compliant material option in s. NR 465.33(2)(a) only the example coating density is required.

d. The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of s. NR 465.37(2).

8. The calculation of kg (lb) of organic HAP emitted per kg (lb) of coating solids used for the compliance options you used, as specified in subd 8.a. to c.

a. For the compliant material option in s. NR 465.33(2)(a), provide an example calculation of the organic HAP content for one coating, using Equation 1 of s. NR 465.36(2).

b. For the emission rate without add-on controls option in s. NR 465.33(2)(b), provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total mass of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A to 1C, 2 and 3, respectively, of s. NR 465.37(2).

c. For the emission rate with add-on controls option in s. NR 465.33(2)(c), provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and other additives, and cleaning materials used each month, using Equations 1 and 1A to 1C of s. NR 465.37(2); the calculation of the total mass of coating solids used each month

using Equation 2 of s. NR 465.37(2); the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A to 1D of s. NR 465.38(2) and Equations 2, 3, and 3A to 3C of s. NR 465.38(2), as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of s. NR 465.38(2); and the calculation of the 12-month organic HAP emission rate using Equation 5 of s. NR 465.38(2).

9. For the emission rate with add-on controls option in s. NR 465.33(2)(c), you shall include the information specified in subd. 9.a. to d., except that the requirements in subd. 9.a. to c. do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to s. NR 465.38(2)(j).

a. For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you shall also include the statistical calculations to show you meet the DQO or LCL criteria in 40 CFR part 63, Subpart KK, Appendix A, incorporated by reference in s. NR 484.04(24). You do not need to submit complete test reports.

b. A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

c. A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

d. A statement of whether or not you developed and implemented the work practice plan required by s. NR 465.33(4).

10. If you are complying with a single emission limit representing the predominant activity under s. NR 465.33(1)(c)1., include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in s. NR 465.33(1)(c)1.

11. If you are complying with a facility-specific emission limit under s. NR 465.33(1)(c)2., include the calculation of the facility-specific emission limit and any supporting information as specified in s. NR 465.33(1)(c)2.

(2) WHAT REPORTS MUST I SUBMIT? (a) *Semiannual compliance reports.* You shall submit semiannual compliance reports for each affected source according to the requirements of subds. 1. to 7. The semiannual compliance

reporting requirements may be satisfied by reports required under other parts of the Clean Air Act, as specified in subd. 2.

1. 'Dates.' Unless the department has approved or agreed to a different schedule for submission of reports under s. NR 460.09(1), you shall prepare and submit each semiannual compliance report according to the dates specified in subd. 1.a. to d. The information reported for each of the months in the reporting period shall be based on the last 12 months of data prior to the date of each monthly calculation.

a. The first semiannual compliance report shall cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in s. NR 465.36(1), 465.37(1) or 465.38(1) that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

b. Each subsequent semiannual compliance report shall cover the subsequent semiannual reporting period from January 1 to June 30 or the semiannual reporting period from July 1 to December 31.

c. Each semiannual compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

d. For each affected source that is subject to permitting regulations pursuant to ch. NR 407, and if the department has established dates for submitting semiannual reports pursuant to s. NR 407.09(1)(c)3.a., you may submit the first and subsequent compliance reports according to those dates instead of according to the date specified in subd. 1.c.

2. 'Inclusion with title V report.' Each affected source that has obtained a title V operating permit pursuant to ch. NR 407 shall report all deviations in the semiannual monitoring report required by s. NR 407.09(1)(c)3.a. If an affected source submits a semiannual compliance report pursuant to this subsection along with, or as part of, the semiannual monitoring report required by s. NR 407.09(1)(c)3.a., and the semiannual compliance report includes all required information concerning deviations from any emission limit specified in s. NR 465.33(1), its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the department.

3. 'General requirements.' The semiannual compliance report shall contain the information specified in subd. 3.a. to g., and the information specified in subds. 4. to 7. and par. (c)1. that is applicable to your affected source.

a. Company name and address.

b. Statement by a responsible official with that official's name, title and signature, certifying the truth, accuracy and completeness of the content of the report.

c. Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. The information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

d. Identification of the compliance option or options specified in s. NR 465.33(2) that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you shall report the beginning and ending dates for each option you used.

e. If you used the emission rate without add-on controls option or the emission rate with add-on controls option in s. NR 465.33(2)(b) or (c), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

f. If you used the predominant activity alternative in s. NR 465.33(1)(c)1., include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

g. If you used the facility-specific emission limit alternative in s. NR 465.33(1)(c)2., include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

4. 'No deviations.' If there were no deviations from the emission limits in s. NR 465.33(1), (3) and (4) that apply to you, the semiannual compliance report shall include a statement that there were no deviations from the emission limits during the reporting period. If you used the emission rate with add-on controls option in s. NR 465.33(2)(c) and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in s. NR 460.07(3)(g), the semiannual compliance report shall include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

5. 'Deviations: compliant material option.' If you used the compliant material option in s. NR 465.33(2)(a), and there was a deviation from the applicable organic HAP content requirements in s. NR 465.33(1), the semiannual compliance report shall contain the information in subd. 5.a. to d.

a. Identification of each coating used that deviated from the applicable emission limit in s. NR 465.33(1), and each thinner and other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used.

b. The calculation of the organic HAP content, using Equation 1 of s. NR 465.36(2), for each coating identified in subd. 5.a. You do not need to submit background data supporting this calculation, such as information provided by coating suppliers or manufacturers, or test reports.

c. The determination of mass fraction of organic HAP for each thinner and other additive, and cleaning material identified in subd. 5.a. You do not need to submit background data supporting this calculation, such as information provided by material suppliers or manufacturers, or test reports.

d. A statement of the cause of each deviation.

6. 'Deviations: emission rate without add-on controls option.' If you used the emission rate without add-on controls option in s. NR 465.33(2)(b) and there was a deviation from the applicable emission limit in s. NR 465.33(1), the semiannual compliance report shall contain the information in subd. 6.a. to c.

a. The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in s. NR 465.33(1).

b. The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You shall submit the calculations for Equations 1, 1A to 1C, 2 and 3 of s. NR 465.37(2); and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.37(2)(e)4. You do not need to submit background data supporting these calculations, such as information provided by materials suppliers or manufacturers, or test reports.

c. A statement of the cause of each deviation.

7. 'Deviations: emission rate with add-on controls option.' If you used the emission rate with add-on controls option in s. NR 465.33(2)(c) and there was a deviation from an emission limit in s. NR 465.33(1), including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere, the semiannual compliance report shall contain the information in subd. 7.a. to n. This includes periods of startup, shutdown and malfunction during which deviations occurred.

a. The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in s. NR 465.33(1).

b. The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You shall provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and other additives, and cleaning materials used each month using Equations 1 and 1A to 1C of s.

NR 465.37(2); and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.37(2)(e)4.; the calculation of the total mass of coating solids used each month using Equation 2 of s. NR 465.37(2); the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A to 1D of s. NR 465.38(2), and Equations 2, 3 and 3A to 3C of s. NR 465.38(2), as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of s. NR 465.38(2); and the calculation of the 12-month organic HAP emission rate using Equation 5 of s. NR 465.38(2). You do not need to submit the background data supporting these calculations, such as information provided by materials suppliers or manufacturers, or test reports.

c. The date and time that each malfunction started and stopped.

d. A brief description of the CPMS.

e. The date of the latest CPMS certification or audit.

f. The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

g. The date, time and duration that each CPMS was out-of-control, including the information in s. NR 460.07(3)(h).

h. The date and time period of each deviation from an operating limit in Table 1 of this subchapter; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

i. A summary of the total duration of each deviation from an operating limit in Table 1 of this subchapter and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

j. A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subchapter and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes and other unknown causes.

k. A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

L. A description of any changes in the CPMS, coating operation, emission capture system or add-on control device since the last semiannual reporting period.

m. For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

n. A statement of the cause of each deviation.

(b) *Performance test reports*. If you use the emission rate with add-on controls option in s. NR 465.33(2)(c), you shall submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in s. NR 460.09(4)(b).

(c) *Startup, shutdown, malfunction reports*. If you used the emission rate with add-on controls option in s. NR 465.33(2)(c) and you had a startup, shutdown or malfunction during the semiannual reporting period, you shall submit the reports specified in subds. 1. and 2.

1. If your actions were consistent with your startup, shutdown and malfunction plan, you shall include the information specified in s. NR 460.09(4) in the semiannual compliance report required by par. (a).

2. If your actions were not consistent with your startup, shutdown and malfunction plan, you shall submit an immediate startup, shutdown and malfunction report as described in subd. 2.a. and b.

a. You shall describe the actions taken during the event in a report delivered by facsimile, telephone or other means to the department within 2 working days after starting actions that are inconsistent with the plan.

b. You shall submit a letter to the department within 7 working days after the end of the event, unless you have made alternative arrangements with the department as specified in s. NR 460.09(4)(e)2. The letter shall contain the information specified in s. NR 460.09(4)(e)2.

(3) WHAT RECORDS MUST I KEEP? You shall collect and keep records of the data and information specified in this subsection. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subchapter, and the documentation supporting each notification and report. If you are using the predominant activity alternative under s. NR 465.33(1)(c), you shall keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under s. NR 465.33(1)(c)2., you shall keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You shall also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and other additive, and cleaning material, and the mass fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density or mass fraction of coating solids, you shall keep a copy of the complete test report. If you used information provided to you by the manufacturer or supplier of the material that was based on testing, you shall keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in subds. 1. to 4:

1. A record of the coating operations on which you used each compliance option in s. NR 465.33(2) and the time periods, beginning and ending dates and times, for each option you used.

2. For the compliant material option in s. NR 465.33(2)(a), a record of the calculation of the organic HAP content for each coating, using Equation 1 of s. NR 465.36(2).

3. For the emission rate without add-on controls option in s. NR 465.33(2)(b), a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and other additives, and cleaning materials used each month using Equations 1, 1A to 1C, and 2 of s. NR 465.37(2) and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.37(2)(e)4.; the calculation of the total mass of coating solids used each month using Equation 2 of s. NR 465.37(2); and the calculation of each 12-month organic HAP emission rate using Equation 3 of s. NR 465.37(2).

4. For the emission rate with add-on controls option in s. NR 465.33(2)(c), records of the calculations specified in subd. 4.a. to e.

a. The calculation of the total mass of organic HAP emissions for the coatings, thinners and other additives, and cleaning materials used each month using Equations 1 and 1A to 1C of s. NR 465.37(2); and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.37(2)(e)4.

b. The calculation of the total mass of coating solids used each month using Equation 2 of s. NR 465.37(2).

c. The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A to 1D of s. NR 465.38(2) and Equations 2, 3 and 3A to 3C of s. NR 465.38(2), as applicable.

d. The calculation of each month's organic HAP emission rate using Equation 4 of s. NR 465.38(2).

e. The calculation of each 12-month organic HAP emission rate using Equation 5 of s. NR 465.38(2).

(d) A record of the name and mass of each coating, thinner and other additive, and cleaning material used during each compliance period. If you are using the compliant material option in s. NR 465.33(2)(a) for all coatings at the source, you may maintain purchase records for each material used rather than a record of the mass used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and other additive, and cleaning material used during each compliance period.

(f) A record of the mass fraction of coating solids for each coating used during each compliance period.

(g) If you use an allowance in Equation 1 of s. NR 465.37(2) for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage and disposal facility (TSDF) according to s. NR 465.37(2)(e)4., you shall keep records of the information specified in subds. 1. to 3.

1. The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of s. NR 465.37(2), a statement of which subparts under 40 CFR parts 262, 264, 265 and 266 apply to the facility; and the date of each shipment.

2. Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of s. NR 465.37(2).

3. The methodology used in accordance with s. NR 465.37(2)(e)4. to determine the total amount of waste materials sent to or the amount collected, stored and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This shall include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(h) You shall keep records of the date, time and duration of each deviation.

(i) If you use the emission rate with add-on controls option in s. NR 465.33(2)(c), you shall keep the records specified in subds. 1. to 8.

1. For each deviation, a record of whether the deviation occurred during a period of startup, shutdown or malfunction.

2. The records in s. NR 460.05(4)(c)3. to 5. related to startup, shutdown and malfunction.

3. The records required to show continuous compliance with each operating limit specified in Table 1 of this subchapter that applies to you.

4. For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for a PTE and has a capture efficiency of 100%, as specified in s. NR 465.38(6)(a).

5. For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in s. NR 465.38(5) and (6)(b) to (e), including the records specified in subd. 5.a. to c. that apply to you.

a. For a liquid-to-uncaptured gas protocol using a temporary total enclosure or building enclosure, records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 204F in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E in 40 CFR part 51, Appendix M, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 in 40 CFR part 51, Appendix M for either a temporary total enclosure or a building enclosure.

b. For a gas-to-gas protocol using a temporary total enclosure or a building enclosure, records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or 204C in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E in 40 CFR part 51, Appendix M, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 in 40 CFR part 51, Appendix M for either a temporary total enclosure or a building enclosure.

c. For an alternative protocol, records needed to document a capture efficiency determination using an alternative method or protocol as specified in s. NR 465.38(6)(e), if applicable.

6. The records specified in subd. 6.a. and b. for each add-on control device organic HAP destruction or removal efficiency determination as specified in s. NR 465.38(7).

a. Records of each add-on control device performance test conducted according to s. NR 465.38(5) and (7).

b. Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

7. Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in s. NR 465.38(8) and to document compliance with the operating limits as specified in Table 1 of this subchapter.

8. A record of the work practice plan required by s. NR 465.33(4) and documentation that you are implementing the plan on a continuous basis.

(4) IN WHAT FORM AND FOR HOW LONG MUST I KEEP MY RECORDS? (a) Your records shall be in a form suitable and readily available for expeditious review, according to s. NR 460.09(2)(a). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in s. NR 460.09(2)(a), you shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.

(c) You shall keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report or record according to s. NR 460.09(2)(a). You may keep the records off-site for the remaining 3 years.

NR 465.36 Compliance requirements for the compliant material option. (1) BY WHAT DATES MUST I CONDUCT THE INITIAL COMPLIANCE DEMONSTRATION? You shall complete the initial compliance demonstration for the initial compliance period according to the requirements in sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR 465.31(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to sub. (2) and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in s. NR 465.33(1), and that you used no thinners or other additives, or cleaning materials that contained organic HAP as determined according to sub. (2)(a).

(2) HOW DO I DEMONSTRATE INITIAL COMPLIANCE WITH THE EMISSION LIMITS? You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected

source, or for all the coating operations in the affected source. You shall use either the emission rate without add-on controls option in s. NR 465.33(2)(b) or the emission rate with add-on controls option in s. NR 465.33(2)(c) for any coating operation in the affected source for which you do not use the compliant material option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations shall use no coating with an organic HAP content that exceeds the applicable emission limits in s. NR 465.33(1) and shall use no thinner or other additive, or cleaning material that contains organic HAP as determined according to pars. (a) to (d). Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in s. NR 465.33(3) and (4). You shall conduct a separate initial compliance demonstration for each general use coating, thermoplastic olefin coating, automotive lamp coating, and assembled on-road vehicle coating affected source unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in s. NR 465.33(1)(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit, you shall demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You shall meet all the requirements of this subsection. You shall use the procedures in pars. (a) to (d) on each coating, thinner and other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to re-determine the organic HAP content of coatings, thinners and other additives, and cleaning materials that are reclaimed on-site, or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site, and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used*. You shall determine the mass fraction of organic HAP for each coating, thinner and other additive, and cleaning material used during the compliance period by using one of the following 5 options:

1. 'Method 311.' You may use Method 311 in 40 CFR part 63, Appendix A, incorporated by reference in s. NR 484.04(25), for determining the mass fraction of organic HAP. You shall use the procedures specified in subd. 1.a. and b. when performing a Method 311 test.

a. Count each organic HAP that is measured to be present at 0.1% by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0% by mass

or more for other compounds. Express the mass fraction of each organic HAP you count as a value truncated to 4 places after the decimal point.

Note: For example, if toluene, not an OSHA carcinogen, is measured to be 0.5% of the material by mass, you do not have to count it.

b. Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to 3 places after the decimal point.

2. 'Method 24.' For coatings, you may use Method 24 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in 40 CFR part 63, Subpart PPPP Appendix A, incorporated by reference in s. NR 484.04(24r), rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in 40 CFR part 63, Subpart PPPP, Appendix A as a substitute for the mass fraction of organic HAP.

3. 'Alternative method.' You may use an alternative test method for determining the mass fraction of organic HAP once the administrator has approved it. You shall follow the procedure in s. NR 460.06(5) to submit an alternative test method for approval.

4. 'Information from the supplier or manufacturer of the material.' You may rely on information other than that generated by the test methods specified in subds. 1. to 3., such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1% by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0% by mass or more for other compounds. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction content. If there is a disagreement between the manufacturer's data and results of a test conducted according to subds. 1. to 3., then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

Note: For example, concerning which HAPs to include, if toluene (not an OSHA carcinogen) is 0.5% of the material by mass, you do not have to count it.

5. 'Solvent blends.' Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which shall be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you

may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 2 or 3 of this subchapter. If you use the tables, you shall use the values in Table 2 for all solvent blends that match Table 2 entries according to the instructions for Table 2, and you may use Table 3 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 2 and you know only whether the blend is aliphatic or aromatic. However, if the results of a test using Method 311 in 40 CFR part 63, Appendix A, incorporated by reference in s. NR 484.04(25), indicates higher values than those listed on Table 2 or 3, the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

(b) *Determine the mass fraction of coating solids for each coating.* You shall determine the mass fraction of coating solids, in units of kg (lb) of coating solids per kg (lb) of coating, for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in subds. 1. to 3.

1. 'Method 24.' Use Method 24 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), for determining the mass fraction of coating solids. For reactive adhesives in which some of the liquid fraction reacts to form solids, you may use the alternative method contained in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r), rather than Method 24, to determine the mass fraction of coating solids.

2. 'Alternative method.' You may use an alternative test method for determining the solids content of each coating once the administrator has approved it. You shall follow the procedure in s. NR 460.06(5) to submit an alternative test method for approval.

3. 'Information from the supplier or manufacturer of the material.' You may obtain the mass fraction of coating solids for each coating from the supplier or manufacturer. If there is disagreement between the supplier's or manufacturer's information and the test method results, then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

(c) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content of each coating used during the compliance period using Equation 1:

$$H_c = \frac{W_c}{S_c} \qquad \text{(Equation 1)}$$

where:

H_c is the organic HAP content of the coating, kg (lb) of organic HAP emitted per kg (lb) of coating solids used

W_c is the mass fraction of organic HAP in the coating, kg (lb) of organic HAP per kg (lb) of coating, determined according to par. (a)

S_c is the mass fraction of coating solids, kg (lb) of coating solids per kg (lb) of coating, determined according to par. (b)

(d) *Compliance demonstration*. The calculated organic HAP content for each coating used during the initial compliance period shall be less than or equal to the applicable emission limit in s. NR 465.33(1); and each thinner and other additive, and cleaning material used during the initial compliance period shall contain no organic HAP, determined according to par. (a). You shall keep all records required by s. NR 465.35(3) and (4). As part of the notification of compliance status required in s. NR 465.35(1), you shall identify any coating operation for which you used the compliant material option and submit a statement that the coating operation was in compliance with the emission limits specified in s. NR 465.33(1) during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in s. NR 465.33(1), and you used no thinners or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in par. (a).

(3) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE WITH THE EMISSION LIMITS? (a) For each compliance period, to demonstrate continuous compliance, you shall use no coating for which the organic HAP content, determined using Equation 1 of sub. (2), exceeds the applicable emission limit in s. NR 465.33(1), and use no thinner or other additive, or cleaning material that contains organic HAP, determined according to sub. (2)(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in sub. (1), is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under s. NR 465.33(1)(c)2., you shall also perform the calculation using Equation 1 in s. NR 465.33(1)(c)2. on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limits in s. NR 465.33(1) by using the compliant material option, the use of any coating, thinner or other additive, or cleaning material that does not meet the criteria specified in par. (a) is a deviation from the emission limits in s. NR 465.33(1) that shall be reported as specified in s. NR 465.35(1)(c)6. and (2)(a)5.

(c) As part of each semiannual compliance report required by s. NR 465.35(2), you shall identify the coating operations for which you used the compliant material option. If there were no deviations from the applicable emission

limit in s. NR 465.33(1), submit a statement that the coating operations were in compliance with the emission limits during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in s. NR 465.33(1), and you used no thinner or other additive, or cleaning material that contained organic HAP, determined according to sub. (2)(a).

(d) You shall maintain records as specified in s. NR 465.35(3) and (4).

NR 465.37 Compliance requirements for the emission rate without add-on controls option. (1) BY WHAT DATE MUST I CONDUCT THE INITIAL COMPLIANCE DEMONSTRATION? You shall complete the initial compliance demonstration for the initial compliance period according to the requirements of sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR 465.31(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You shall determine the mass of organic HAP emissions and mass of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to sub. (2) and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in s. NR 465.33(1).

(2) HOW DO I DEMONSTRATE INITIAL COMPLIANCE WITH THE EMISSION LIMITS? You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You shall use either the compliant material option in s. NR 465.33(2)(a) or the emission rate with add-on controls option in s. NR 465.33(2)(c) for any coating operation in the affected source for which you do not use the emission rate without add-on controls option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations shall meet the applicable emission limit in s. NR 465.33(1), but is not required to meet the operating limits or work practice standards in s. NR 465.33(3) and (4). You shall conduct a separate initial compliance demonstration for each general use, TPO, automotive lamp and assembled on-road vehicle coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in s. NR 465.33(1)(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit, you shall demonstrate that all coating operations included in the predominant activity determination or

calculation of the facility-specific emission limit comply with that limit. You shall meet all the requirements of this subsection. When calculating the organic HAP emission rate according to this subsection, do not include any coatings, thinners or other additives, or cleaning materials used on coating operations for which you use the compliant material option in s. NR 465.33(2)(a) or the emission rate with add-on controls option in s. NR 465.33(2)(c). You do not need to redetermine the mass of organic HAP in coatings, thinners or other additives, or cleaning materials that have been reclaimed on-site, or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site, and reused in the coating operation or operations for which you use the emission rate without add-on controls option. If you use coatings, thinners or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material*. Determine the mass fraction of organic HAP for each coating, thinner and other additive, and cleaning material used during each month according to the requirements in s. NR 465.36(2)(a).

(b) *Determine the mass fraction of coating solids*. Determine the mass fraction of coating solids, kg (lb) of coating solids per kg (lb) of coating, for each coating used during each month according to the requirements in s. NR 465.36(2)(b).

(c) *Determine the density of each material*. Determine the density of each liquid coating, thinner, other additive and cleaning material used during each month from test results using ASTM D1475-98(2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products", incorporated by reference in s. NR 484.10(22), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM D1475-98 (2003) and other information sources, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C and 2 of this subsection.

(d) *Determine the volume of each material used*. Determine the volume, in liters or gallons, of each coating, thinner and other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of

each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C and 2 of this subsection.

(e) *Calculate the mass of organic HAP emissions*. 1. The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using the following equations and the procedures in subd. 2. if applicable:

$$H_e = A + B + C - R_w \qquad \text{(Equation 1)}$$

where:

H_e is the total mass of organic HAP emissions during the month, kg (lb)

A is the total mass of organic HAP in the coatings used during the month, kg (lb), as calculated in Equation 1A of this subsection

B is the total mass of organic HAP in the thinners and other additives used during the month, kg (lb), as calculated in Equation 1B of this subsection

C is the total mass of organic HAP in the cleaning materials used during the month, kg (lb), as calculated in Equation 1C of this subsection

R_w is the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg (lb), determined according to subd. 4. You may assign a value of zero to R_w if you do not wish to use this allowance.

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Equation 1A)}$$

where:

A is the total mass of organic HAP in the coatings used during the month, kg (lb)

$Vol_{c,i}$ is the total volume of coating, i, used during the month, liters (gallons)

$D_{c,i}$ is the density of coating, i, kg (lb) of coating per liter (gallon) of coating

$W_{c,i}$ is the mass fraction of organic HAP in coating, i, kg (lb) of organic HAP per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484. 04 (24r).

m is the number of different coatings used during the month

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Equation 1B)}$$

where:

B is the total mass of organic HAP in the thinners and other additives used during the month, kg (lb)

$Vol_{t,j}$ is the total volume of thinner or other additive, j, used during the month, liters (gallons)

$D_{t,j}$ is the density of thinner or other additive, j, kg per liter (lb per gallon)

$W_{t,j}$ is the mass fraction of organic HAP in thinner or other additive, j, kg (lb) of organic HAP per kg (lb) of thinner or other additive. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

n = is the number of different thinners and other additives used during the month

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Equation 1C)}$$

where:

C is the total mass of organic HAP in the cleaning materials used during the month, kg (lb)

$Vol_{s,k}$ is the total volume of cleaning material, k, used during the month, liters (gallons)

$D_{s,k}$ is the density of cleaning material, k, kg per liter (lb per gallon)

$W_{s,k}$ is the mass fraction of organic HAP in cleaning material, k, kg (lb) of organic HAP per kg (lb) of material

p is the number of different cleaning materials used during the month

2. If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this subsection, then you shall determine the mass according to subd. 2.a. to d.

a. You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this subsection and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265 or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

b. You shall determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

c. Determine the total mass of organic HAP contained in the waste materials specified in subd. 2.b.

d. You shall document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in s. NR 465.35(3)(g). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total mass of coating solids used*. Determine the total mass of coating solids used, which is the combined mass of coating solids for all the coatings used during each month, using the following equation:

$$M_{st} = \sum_{i-1}^{m} (Vol_{c,i})(D_{c,i})(M_{s,i}) \qquad \text{(Equation 2)}$$

where:

M_{st} is the total mass of coating solids used during the month, kg (lb)

$Vol_{c,i}$ is the total volume of coating, i, used during the month, liters (gallons)

$D_{c,i}$ is the density of coating, i, kg per liter (lb per gallon) of coating, determined according to par. (2)(c)

$M_{s,i}$ is the mass fraction of coating solids for coating, i, kg (lb) of solids per kg (lb) of coating, determined according to s. NR 465.36(2)(b)

m is the number of coatings used during the month

(g) *Calculate the organic HAP emission rate*. Calculate the organic HAP emission rate for the compliance period using the following equation:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} M_{st}} \qquad \text{(Equation 3)}$$

where:

H_{yr} is the average organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per kg (lb) of coating solids used

H_e is the total mass of organic HAP emissions from all materials used during month y, kg (lb), as calculated by Equation 1 of this subsection

M_{st} is the total mass of coating solids used during month y, kg (lb), as calculated by Equation 2 of this subsection

y is the number of the month in the compliance period

n is the number of full or partial months in the compliance period. For the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13. For all following compliance periods, n equals 12.

(h) *Compliance demonstration*. The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this subsection shall be less than or equal to the applicable emission limit for each subcategory in s. NR 465.33(1) or the predominant activity or facility-specific emission limit allowed in s. NR 465.33(1)(c). You shall keep all records as required by s. NR 465.35(3) and (4). As part of the notification of compliance status required by s. NR 465.35(1), you shall identify the coating operations for which you used the emission rate without add-on controls option and submit a statement that the coating operations were in compliance with the emission limits specified in s. NR 465.33(1) during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in s. NR 465.33(1), determined according to the procedures in this subsection.

(3) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE WITH THE EMISSION LIMITS? (a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to sub. (2)(a) to (g), shall be less than or equal to the applicable emission limit in s. NR 465.33(1). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in sub. (1) is the end of a compliance period consisting of that month and the preceding 11 months. You shall perform the calculations in sub. (2)(a) to (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under s. NR 465.33(1)(c), you shall also perform the calculation using Equation 1 in s. NR 465.33(1)(c)2. on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in s. NR 465.33(1), this is a deviation from the emission limit for that compliance period and shall be reported as specified in s. NR 465.35(1)(c)6. and (2)(a)6.

(c) As part of each semiannual compliance report required by s. NR 465.35(2), you shall identify the coating operations for which you used the emission rate without add-on controls option. If there were no deviations from the emission limits specified in s. NR 465.33(1), you shall submit a statement that the coating operations were in compliance with the emission limits during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in s. NR 465.33(1), determined according to sub. (2)(a) to (g).

(d) You shall maintain records as specified in s. NR 465.35(3) and (4).

NR 465.38 Compliance requirements for the emission rate with add-on controls option. (1) BY WHAT DATE MUST I CONDUCT PERFORMANCE TESTS AND OTHER INITIAL COMPLIANCE DEMONSTRATIONS? (a) For a new or reconstructed affected source, you shall meet the requirements of subds. 1. to 4.

1. All emission capture systems, add-on control devices, and CPMS shall be installed and operating no later than the applicable compliance date specified in s. NR 465.31(4). Except for solvent recovery systems for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall conduct a performance test of each capture system and add-on control device according to subs. (5), (6) and (7) and establish the operating limits required by s. NR 465.33(3) no later than 180 days after the applicable compliance date specified in s. NR 465.31(4). For a solvent recovery system for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall initiate the first material balance no later than the applicable compliance date specified in s. NR 465.31(4).

2. You shall develop and begin implementing the work practice plan required by s. NR 465.33(4) no later than the compliance date specified in s. NR 465.31(4).

3. You shall complete the initial compliance demonstration for the initial compliance period according to the requirements of sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR 465.31(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month

plus the next 12 months. You shall determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to subs. (5), (6) and (7); results of liquid-liquid material balances conducted according to sub. (2)(j); calculations according to sub. (2) and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in s. NR 465.33(1); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by sub. (9); and documentation of whether you developed and implemented the work practice plan required by s. NR 465.33(4).

4. You do not need to comply with the operating limits for the emission capture system and add-on control device required by s. NR 465.33(3) until after you have completed the performance tests specified in subd. 1. Instead, you shall maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You shall begin complying with the operating limits for your affected source on the date you complete the performance tests specified in subd. 1. The requirements in this subdivision do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in sub. (2)(j).

(b) For an existing affected source, you shall meet the requirements of subds. 1. to 3.

1. All emission capture systems, add-on control devices and CPMS shall be installed and operating no later than the applicable compliance date specified in s. NR 465.31(4). Except for solvent recovery systems for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall conduct a performance test of each capture system and add-on control device according to the procedures in subs. (5), (6) and (7) and establish the operating limits required by s. NR 465.33(3) no later than the compliance date specified in s. NR 465.31(4). For a solvent recovery system for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall initiate the first material balance no later than the compliance date specified in s. NR 465.31(4).

2. You shall develop and begin implementing the work practice plan required by s. NR 465.33(4) no later than the compliance date specified in s. NR 465.31(4).

3. You shall complete the initial compliance demonstration for the initial compliance period according to the requirements of sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR

465.31(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You shall determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to subs. (5), (6) and (7); results of liquid-liquid material balances conducted according to sub. (2)(j); calculations according to sub. (2) and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in s. NR 465.33(1); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by sub. (9); and documentation of whether you developed and implemented the work practice plan required by s. NR 465.33(4).

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system or control device. Any previous tests shall meet the conditions described in subds. 1. to 3.

1. The previous test shall have been conducted using the methods and conditions specified in this subchapter.

2. Either no process or equipment changes shall have been made since the previous test was performed, or the owner or operator shall be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

3. Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

(2) HOW DO I DEMONSTRATE INITIAL COMPLIANCE? (a) *General.* You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You shall use either the compliant material option in s. NR 465.33(2)(a) or the emission rate without add-on controls option in s. NR 465.33(2)(b) for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operations for which you use the emission rate with add-on controls option shall meet the

applicable emission limits in s. NR 465.33(1), (3) and (4). You shall conduct a separate initial compliance demonstration for each general use, thermoplastic olefin, automotive lamp and assembled on-road vehicle coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in s. NR 465.33(1)(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit, you shall demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You shall meet all the requirements of this subsection. When calculating the organic HAP emission rate according to this subsection, do not include any coatings, thinners or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to re-determine the mass of organic HAP in coatings, thinners or other additives, or cleaning materials that have been reclaimed onsite, or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site, and reused in the coatings operations for which you use the emission rate with add-on controls option. If you use coatings, thinners or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits*. Except as provided in sub. (1)(a)4., and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of par. (j), you shall establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by s. NR 465.33(3), using the procedures specified in subs. (8) and (9).

(c) *Compliance with work practice requirements*. You shall develop, implement and document your implementation of the work practice plan required by s. NR 465.33(4) during the initial compliance period, as specified in s. NR 465.35(3).

(d) *Compliance with emission limits*. You shall follow the procedures in pars. (e) to (n) to demonstrate compliance with the applicable emission limit in s. NR 465.33(1) for each affected source in each sub-category.

(e) *Determine the mass fraction of organic HAP, density, volume used, and mass fraction of coating solids*. Follow the procedures specified in s. NR 465.37(2)(a) to (d) to determine the mass fraction of organic HAP, density and volume of each coating, thinner and other additive, and cleaning material used during each month; and the mass fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of s. NR 465.37(2), calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in par. (h) to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in par. (j) to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use the equations in this paragraph to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. You shall assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in sub. (4)(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the department.

Note: The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. Equation 1 treats the materials used during a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_C = (A_C + B_C + C_C - R_W - H_{UNC})(\frac{CE}{100} \text{ x } \frac{DRE}{100}) \qquad \text{(Equation 1)}$$

where:

H_C is the mass of organic HAP emission reduction for the controlled coating operation during the month, kg (lb)

A_C is the total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg (lb), as calculated in Equation 1A of this subsection

B_C is the total mass of organic HAP in the thinners and other additives used in the controlled coating operation during the month, kg (lb), as calculated in Equation 1B of this subsection

C_C is the total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), as calculated in Equation 1C of this subsection

R_w is the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg (lb), determined according to s. NR 465.37(2)(e)4. You may assign a value of zero to R_w if you do not wish to use this allowance.

H_{UNC} is the total mass of organic HAP in the coatings, thinners and other additives, and cleaning materials used during all deviations specified in sub. (4)(c) and (d) that occurred during the month in the controlled coating operation, kg (lb), as calculated in Equation 1D of this subsection

CE is the capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in subs. (5) and (6) to measure and record capture efficiency.

DRE is the organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in subs. (5) and (7) to measure and record the organic HAP destruction or removal efficiency.

$$A_C = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Equation 1A)}$$

where:

A_C is the total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg (lb)

$Vol_{c,i}$ is the total volume of coating, i, used during the month, liters (gallons)

$D_{c,i}$ is the density of coating, i, kg per liter (lb per gallon)

$W_{c,i}$ is the mass fraction of organic HAP in coating, i, kg per kg (lb per lb). For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

m is the number of different coatings used

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Equation 1B)}$$

where:

B_C is the total mass of organic HAP in the thinners or other additives used in the controlled coating operation during the month, kg (lb)

$Vol_{t,j}$ is the total volume of thinner or other additive, j, used during the month, liters (gallons)

$D_{t,j}$ is the density of thinner or other additive, j, kg per liter (lb per gallon)

$W_{t,j}$ is the mass fraction of organic HAP in thinner or other additive, j, kg per kg (lb per lb). For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

n is the number of different thinners and other additives used

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Equation 1C)}$$

where:

C_C is the total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb)

$Vol_{s,k}$ is the total volume of cleaning material, k, used during the month, liters (gallons)

$D_{s,k}$ is the density of cleaning material, k, kg per liter (lb per gallon)

$W_{s,k}$ is the mass fraction of organic HAP in cleaning material, k, kg per kg (lb per lb)

p is the number of different cleaning materials used

$$H_{UNC} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h) \qquad \text{(Equation 1D)}$$

where:

H_{UNC} is the total mass of organic HAP in the coatings, thinners and other additives, and cleaning materials used during all deviations specified in sub. (4)(c) and (d) that occurred during the month in the controlled coating operation, kg (lb)

Vol_h is the total volume of coating, thinner or other additives, or cleaning material, h, used in the controlled coating operation during deviations, liters (gallons)

D_h is the density of coating, thinner or other additives, or cleaning material, h, kg per liter (lb per gallon)

W_h is the mass fraction of organic HAP in coating, thinner or other additives, or cleaning material, h, kg (lb) of organic HAP per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

q is the number of different coatings, thinners and other additives, and cleaning materials used

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and other additives and cleaning materials that are used in the coating operation or operations controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in subds. 1. to 6. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in subd. 7.

1. For each solvent recovery system, install, calibrate, maintain and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device shall be initially certified by the manufacturer to be accurate to within 2.0% of the mass of volatile organic matter recovered.

2. For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, based on measurement with the device required in subd. 1.

3. Determine the mass fraction of volatile organic matter for each coating, thinner and other additive and cleaning material used in the coating operation or operations controlled by the solvent recovery system during the month, kg (lb) of volatile organic matter per kg (lb) of coating. You may determine the volatile organic matter mass fraction using Method 24 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method

24 or an approved alternative method, the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

4. Determine the density of each coating, thinner or other additive and cleaning material used in the coating operation or operations controlled by the solvent recovery system during the month, kg per liter (lb per gallon), according to s. NR 465.37(2)(c).

5. Measure the volume of each coating, thinner and other additive and cleaning material used in the coating operation or operations controlled by the solvent recovery system during the month, liters (gallons).

6. Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency using the following equation:

$$R_V = \frac{100 M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \quad \text{(Equation 2)}$$

where:

R_V is the volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent

M_{VR} is the mass of volatile organic matter recovered by the solvent recovery system during the month, kg (lb)

Vol_i is the volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters (gallons)

D_i is the density of coating, i, kg per liter (lb per gallon)

$WV_{c,i}$ is the mass fraction of volatile organic matter for coating i, kg (lb) of volatile organic matter per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

Vol_j is the volume of thinner or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters (gallons)

D_j is the density of thinner or other additive, j, kg per liter (lb per gallon)

$WV_{t,j}$ is the mass fraction of volatile organic matter for thinner or other additive, j, kg (lb) of volatile organic matter per kg (lb) of thinner or other additive. For reactive adhesives, use the mass fraction of organic HAP that is

emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

Vol_k is the volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters (gallons)

D_k is the density of cleaning material, k, kg per liter (lb per gallon)

$WV_{s,k}$ is the mass fraction of volatile organic matter for cleaning material, k, kg (lb) of volatile organic matter per kg (lb) of cleaning material

m is the number of different coatings used in the coating operation controlled by the solvent recovery system during the month

n is the number of different thinners and other additives used in the coating operation controlled by the solvent recovery system during the month

p is the number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month

7. Calculate the mass of organic HAP emission reduction for the coating operation or operations controlled by the solvent recovery system during the month, using the following equations:

$$H_{CSR} = (A_{CSR} + B_{CSR} + C_{CSR})(\frac{R_V}{100}) \qquad \text{(Equation 3)}$$

where:

H_{CSR} is the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg (lb)

A_{CSR} is the total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg (lb), calculated using Equation 3A of this subsection

B_{CSR} is the total mass of organic HAP in the thinners and other additives used in the coating operation controlled by the solvent recovery system, kg (lb), calculated using Equation 3B of this subsection

C_{CSR} is the total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg (lb), calculated using Equation 3C of this subsection

R_V is the volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of subd. 6.

$$A_{CSR} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Equation 3A)}$$

where:

A_{CSR} is the total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg (lb)

$Vol_{c,i}$ is the total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters (gallons)

$D_{c,i}$ is the density of coating, i, kg per liter (lb per gallon)

$W_{c,i}$ is the mass fraction of organic HAP in coating, i, kg (lb) of organic HAP per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

m is the number of different coatings used

$$B_{CSR} = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Equation 3B)}$$

where:

B_{CSR} is the total mass of organic HAP in the thinners and other additives used in the coating operation controlled by the solvent recovery system during the month, kg (lb)

$Vol_{t,j}$ is the total volume of thinner or other additive, j, used during the month in the coating operation controlled by the solvent recovery system, liters (gallons)

$D_{t,j}$ is the density of thinner or other additive, j, kg per liter (lb per gallon)

$W_{t,j}$ is the mass fraction of organic HAP in thinner or other additive, j, kg (lb) of organic HAP per kg (lb) of thinner or other additive. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

n is the number of different thinners and other additives used

$$C_{CSR} = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Equation 3C)}$$

where:

C_{CSR} is the total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg (lb)

$Vol_{s,k}$ is the total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters (gallons)

$D_{s,k}$ is the density of cleaning material, k, kg per liter (lb per gallon)

$W_{s,k}$ is the mass fraction of organic HAP in cleaning material, k, kg (lb) of organic HAP per kg (lb) of cleaning material

p is the number of different cleaning materials used

(k) *Calculate the total mass of coating solids used*. Determine the total mass of coating solids used which is the combined mass of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of s. NR 465.37(2).

(L) *Calculate the mass of organic HAP emissions for each month*. Determine the mass of organic HAP emissions during each month, using the following equation:

$$H_{HAP} = H_e - \sum_{i=1}^{q} (H_{c,i}) - \sum_{j-1}^{r} (H_{CSR,j}) \qquad \text{(Equation 4)}$$

where:

H_{HAP} is the total mass of organic HAP emissions for the month, kg (lb)

H_e is the total mass of organic HAP emissions before add-on controls from all the coatings, thinners and other additives, and cleaning materials used during the month, kg (lb), determined according to par. (f)

$H_{c,i}$ is the total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg (lb), from Equation 1 of this subsection

$H_{CSR,j}$ is the total mass of organic HAP emission reduction for coating operation j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg (lb), from Equation 3 of this subsection

q is the number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance

r is the number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance

(m) *Calculate the organic HAP emission rate for the compliance period.* Determine the organic HAP emission rate for the compliance period using the following equation:

$$H_{annual} = \frac{\sum_{y=1}^{n} H_{HAP,y}}{\sum_{y=1}^{n} M_{st,y}} \qquad \text{(Equation 5)}$$

where:

H_{annual} is the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per kg (lb) of coating solids used

$H_{HAP,y}$ is the organic HAP emissions for month, y, kg (lb), determined according to Equation 4 of this subsection

$M_{st,y}$ is the total mass of coating solids used during month, y, kg (lb), from Equation 2 of s. NR 465.37(2)

y is the number of the month in the compliance period

n is the number of full or partial months in the compliance period. For the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13. For all following compliance periods, n equals 12.

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this subsection, shall be less than or equal to the applicable emission limit for each sub-category in s. NR 465.33(1) or the predominant activity or facility-specific emission limit allowed in s. NR 465.33(1)(c). You shall keep all records as required by s. NR 465.35(3) and (4). As part of the notification of compliance status required by s. NR 465.35(1), you shall identify the coating operations for which you used the emission rate with add-on controls option and submit a statement that the coating operations were in compliance with the emission limits in s. NR 465.33(1) during the initial compliance period because the organic HAP emission rate was less than or equal to the

applicable emission limit in s. NR 465.33(1), and you achieved the operating limits required by s. NR 465.33(3) and the work practice standards required by s. NR 465.33(4).

(4) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE WITH THE EMISSION LIMITS? (a) To demonstrate continuous compliance with the applicable emission limit in s. NR 465.33(1), the organic HAP emission rate for each compliance period, determined according to the procedures in sub. (2), shall be equal to or less than the applicable emission limit in s. NR 465.33(1). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in sub. (1) is the end of a compliance period consisting of that month and the preceding 11 months. You shall perform the calculations in sub. (2) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under s. NR 465.33(1)(c), you shall also perform the calculation using Equation 1 in s. NR 465.33(1)(c)2. on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in s. NR 465.33(1), this is a deviation from the emission limit for that compliance period that shall be reported as specified in s. NR 465.35(1)(c)6. and (2)(a)7.

(c) You shall demonstrate continuous compliance with each operating limit required by s. NR 465.33(3) that applies to you, as specified in Table 1 of this subchapter, when the coating line is in operation. If an operating parameter is out of the allowed range specified in Table 1, you shall do both of the following:

1. Report as a deviation from the operating limit as specified in s. NR 465.35(1)(c)6. and (2)(a)7.

2. Assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the department.

(d) You shall meet the requirements for bypass lines in sub. (9)(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that shall be reported as specified in s. NR 465.35(1)(c)6. and (2)(a)7. For the purposes of completing the compliance calculations specified in sub. (2)(h), you shall treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of sub. (2).

(e) You shall demonstrate continuous compliance with the work practice standards in s. NR 465.33(4). If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by s. NR 465.35(3)(i)8., this is a deviation from the work practice standards that shall be reported as specified in s. NR 465.35(1)(c)6. and (2)(a)7.

(f) As part of each semiannual compliance report required in s. NR 465.35(2), you shall identify the coating operations for which you used the emission rate with add-on controls option. If there were no deviations from the emission limits specified in s. NR 465.33(1), you shall submit a statement that you were in compliance with the emission limits during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in s. NR 465.33(1), and you achieved the operating limits required by s. NR 465.33(3) and the work practice standards required by s. NR 465.33(4) during each compliance period.

(g) During periods of startup, shutdown or malfunction of the emission capture system, add-on control device or coating operation that may affect emission capture or control device efficiency, you shall operate in accordance with the startup, shutdown and malfunction plan required by s. NR 465.34(1)(c).

(j) You shall maintain records as specified in s. NR 465.35(3) and (4).

(5) WHAT ARE THE GENERAL REQUIREMENTS FOR PERFORMANCE TESTS? (a) You shall conduct each performance test required by sub. (1) according to the requirements in s. NR 460.06(4)(a) and under the conditions in this paragraph, unless you obtain a waiver of the performance test according to the provisions in s. NR 460.06(7).

1. 'Representative coating operation operating conditions.' You shall conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown or malfunction and during periods of non-operation do not constitute representative conditions. You shall record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

2. 'Representative emission capture system and add-on control device operating conditions.' You shall conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You shall record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You shall conduct each performance test of an emission capture system according to the requirements in sub. (6). You shall conduct each performance test of an add-on control device according to the requirements in sub. (7).

(6) HOW DO I DETERMINE THE EMISSION CAPTURE SYSTEM EFFICIENCY? You shall use the procedures and test methods in this subsection to determine capture efficiency as part of the performance test required by sub. (1).

(a) *Assuming 100% capture efficiency*. You may assume the capture system efficiency is 100% if both of the conditions in subds. 1. and 2. are met.

1. The capture system meets the criteria in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

2. All coatings, thinners and other additives and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system.

Note: For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency*. If the capture system does not meet both of the conditions in par. (a), then you shall use one of the 3 protocols described in pars. (c), (d) and (e) to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in pars. (c) and (d), the capture efficiency measurement shall consist of 3 test runs. Each test run shall be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of the production, which includes surface preparation activities and drying and curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure*. The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. You shall use a temporary total enclosure or a building enclosure and the procedures in subds. 1. to 6. to measure emission capture system efficiency when using the liquid-to-uncaptured-gas protocol.

1. Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, shall also be inside the enclosure. The enclosure shall meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).

2. Use Method 204A or 204F in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to determine the mass fraction of TVH liquid input from each coating, thinner and other additive and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

3. Use Equation 1 in this subsection to calculate the total mass of TVH liquid input from all the coatings, thinners and other additives and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad \text{(Equation 1)}$$

where:

TVH_{used} is the mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg (lb)

TVH_i is the mass fraction of TVH in coating, thinner or other additive or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg (lb) of TVH per kg (lb) of material

Vol_i is the total volume of coating, thinner or other additive or cleaning material, i, used in the coating operation during the capture efficiency test run, liters (gallons)

D_i is the density of coating, thinner or other additive or cleaning material, i, kg (lb) of material per liter (gallon) of material

n is the number of different coatings, thinners and other additives, and cleaning materials used in the coating operation during the capture efficiency test run

4. Use Method 204D or 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to measure the total mass of TVH emissions that are not captured by the emission capture system. They are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

a. Use Method 204D in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a temporary total enclosure.

b. Use Method 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, shall be shut down, but all fans and blowers shall be operating normally.

5. For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using the following equation:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} x100 \qquad \text{(Equation 2)}$$

where:

CE is the capture efficiency of the emission capture system vented to the add-on control device, percent

TVH_{used} is the total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg (lb)

$TVH_{uncaptured}$ is the total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg (lb)

6. Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the 3 test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. You shall use a temporary total enclosure or a building enclosure and the procedures in subds. 1. to 5. to measure emission capture system efficiency when using the gas-to-gas protocol.

1. Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and other additives and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, shall also be inside the enclosure. The enclosure shall meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).

2. Use Method 204B or 204C in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to measure the total mass of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

a. The sampling points for the Method 204B or 204C in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), measurement shall be upstream from the add-on control device and shall represent total emissions routed from the capture system and entering the add-on control device.

b. If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device shall be simultaneously measured in each duct and the total emissions entering the add-on control device shall be determined.

3. Use Method 204D or 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to measure the total mass of TVH emissions that are not captured by the emission capture system. They are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

a. Use Method 204D in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a temporary total enclosure.

b. Use Method 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, shall be shut down, but all fans and blowers shall be operating normally.

4. For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using the following equation:

$$CE = \frac{TVH_{captured}}{(TVH_{captured} + TVH_{uncaptured})} x100 \qquad \text{(Equation 3)}$$

where:

CE is the capture efficiency of the emission capture system vented to the add-on control device, percent

$TVH_{captured}$ is the total mass of TVH captured by the emission capture systems measured at the inlet to the add-on control device during the emission capture efficiency test run, kg (lb)

$TVH_{uncaptured}$ is the total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg (lb)

5. Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the 3 test runs.

(e) *Alternative capture efficiency protocol*. As an alternative to the procedures specified in pars. (c) and (d) and subject to the approval of the department, you may determine capture efficiency using any other capture efficiency protocol and test method that satisfies the criteria of either the DQO or LCL approach as described in 40 CFR part 63, Subpart KK, Appendix A, incorporated by reference in s. NR 484.04(24).

(7) HOW DO I DETERMINE THE ADD-ON CONTROL DEVICE EMISSION DESTRUCTION OR REMOVAL EFFICIENCY? You shall use the procedures and test methods in this subsection to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by sub. (1). You shall conduct 3 test runs as specified in s. NR 460.06(4)(c), and each test run shall last at least one hour.

(a) For all types of add-on control devices, use the test methods specified in subds. 1. to 5.

1. Method 1 or 1A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), as appropriate, to select sampling sites and velocity traverse points.

2. Method 2, 2A, 2C, 2D, 2F or 2G in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), as appropriate, to measure gas volumetric flow rate.

3. Method 3, 3A or 3B in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), as appropriate, for gas analysis to determine dry molecular weight.

4. Method 4 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), to determine stack gas moisture.

5. Methods for determining gas volumetric flow rate, dry molecular weight and stack gas moisture shall be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13).

1. Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

2. Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

3. Use Method 25A if the add-on control device is not an oxidizer.

(c) If 2 or more add-on control devices are used for the same emission stream, then you shall measure emissions at the outlet to the atmosphere of each device.

Note: For example, if one add-on control device is a concentrator with an outlet to the atmosphere for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet to the atmosphere for the low-volume concentrated stream that is treated with the oxidizer, you shall measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this subsection. If there is more than one inlet or outlet to the add-on control device, you shall calculate the total gaseous organic mass flow rate using Equation 1 for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \qquad \text{(Equation 1)}$$

where:

M_f is the total gaseous organic emissions mass flow rate, kg per hour (h)

C_c is the concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), parts per million by volume (ppmv), dry basis

Q_{sd} is the volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F or 2G in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), dry standard cubic meters/hour (dscm/h)

0.0416 is the conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (at 293 Kelvin (K) and 760 millimeters of mercury (mmHg))

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using the following equation:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} x100 \qquad \text{(Equation 2)}$$

where:

DRE is the organic emissions destruction or removal efficiency of the add-on control device, percent

M_{fi} is the total gaseous organic emissions mass flow rate at the inlet to the add-on control device, using Equation 1 of this subsection, kg/h

M_{fo} is the total gaseous organic emissions mass flow rate at the outlet of the add-on control device, using Equation 1 of this subsection, kg/h

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the 3 test runs and calculated in Equation 2 of this subsection.

(8) HOW DO I ESTABLISH THE EMISSION CAPTURE SYSTEM AND ADD-ON CONTROL DEVICE OPERATING LIMITS DURING THE PERFORMANCE TEST? During the performance test required by sub. (1) and described in subs. (5), (6) and (7), you shall establish the operating limits required by s. NR 465.33(3) according to this subsection, unless you have received approval for alternative monitoring and operating limits under s. NR 460.07(6) as specified in s. NR 465.33(3).

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to subds. 1. and 2.

1. During the performance test, you shall monitor and record the combustion temperature at least once every 15 minutes during each of the 3 test runs. You shall monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

2. Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature shall be the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either subds. 1. and 2. or subds. 3. and 4.

1. During the performance test, you shall monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the 3 test runs.

2. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The average temperature just before the catalyst bed and the average temperature difference across the catalyst bed shall be the minimum operating limits for your catalytic oxidizer.

3. You shall monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in subd. 4. During the performance test, you shall monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the 3 test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This average temperature shall be the minimum operating limit for your catalytic oxidizer.

4. You shall develop and implement an inspection and maintenance plan for your catalytic oxidizers for which you elect to monitor according to subd. 3. The plan shall address, at a minimum, the elements specified in subd. 4.a. to c.

a. Annual sampling and analysis of the catalyst conversion efficiency following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you shall replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

b. Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjustment of the equipment to assure proper air-to-fuel mixtures.

c. Annual internal inspection of the catalyst bed to check for channeling, abrasion and settling. If problems are found during the annual internal inspection of the catalyst, you shall replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst, then you shall conduct a new performance test to determine destruction efficiency according to sub. (7). If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) *Regenerative carbon adsorbers*. If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to subds. 1. and 2.

1. You shall monitor and record the total regeneration desorbing gas mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

2. The operating limits for your regenerative carbon adsorber shall be the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers*. If your add-on control device is a condenser, establish the operating limits according to subds. 1. and 2.

1. During the performance test, you shall monitor and record the product side condenser outlet gas temperature at least once every 15 minutes during each of the 3 test runs.

2. Use the data collected during the performance test to calculate and record the average condenser outlet gas temperature maintained during the performance test. This average condenser outlet gas temperature shall be the maximum operating limit for your condenser.

(e) *Concentrators*. If your add-on control device includes a concentrator, you shall establish operating limits for the concentrator according to subds. 1. to 4.

1. During the performance test, you shall monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the 3 runs of the performance test.

2. Use the data collected during the performance test to calculate and record the average temperature. This average temperature shall be the minimum operating limit for the desorption concentrate gas stream temperature.

3. During the performance test, you shall monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the 3 runs of the performance test.

4. Use the data collected during the performance test to calculate and record the average pressure drop. This average pressure drop shall be the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems*. For each capture device that is not part of a PTE that meets the criteria of sub. (6)(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in subds. 1. and 2. The operating limit for a PTE is specified in Table 1 of this subchapter.

1. During the capture efficiency determination required by sub. (1) and described in subs. (5) and (6), you shall monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the 3 test runs at a point in the duct between the capture device and the add-on control device inlet.

2. Calculate and record the average gas volumetric flow rate or duct static pressure for the 3 test runs for each capture device. This average gas volumetric flow rate or duct static pressure shall be the minimum operating limit for that specific capture device.

(9) WHAT ARE THE REQUIREMENTS FOR CONTINUOUS PARAMETER MONITORING SYSTEM INSTALLATION, OPERATION AND MAINTENANCE? (a) *General*. You shall install, operate and maintain each CPMS specified in pars. (c), (e), (f) and (g) according to subds. 1. to 6. You shall install, operate and maintain each CPMS specified in pars. (b) and (d) according to subds. 3. to 5.

1. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period. You shall have a minimum of 4 equally spaced successive cycles of CPMS operation in one hour.

2. You shall determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

3. You shall record the results of each inspection, calibration and validation check of the CPMS.

4. You shall maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

5. You shall operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs

and required quality assurance or control activities, including, if applicable, calibration checks and required zero and span adjustments.

6. You may not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods or required quality assurance or control activities when calculating data averages. You shall use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

7. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line*. You shall meet the requirements of subds. 1. and 2. for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

1. You shall monitor or secure the valve or closure mechanism controlling the bypass line in a non-diverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism shall meet one of the requirements specified in subd. 1.a. to e.

a. Install, calibrate, maintain and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position shall be recorded, as well as every time the flow direction is changed. The flow control position indicator shall be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

b. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You shall visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

c. Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You shall inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

d. Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You shall inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

e. Install, calibrate, maintain and operate according to the manufacturer's specifications a flow direction indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction shall be recorded. The flow direction indicator shall be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

2. If any bypass line is opened, you shall include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in s. NR 465.35(2).

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device, including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams, you shall comply with the requirements in subds. 1. to 3.

1. For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

2. For a catalytic oxidizer, install gas temperature monitors upstream or downstream or both of the catalyst bed as required in sub. (8)(b).

3. For all thermal oxidizers and catalytic oxidizers, you shall meet the requirements in par. (a) and the requirements in subd. 3.a. to e. for each gas temperature monitoring device.

a. Locate the temperature sensor in a position that provides a representative temperature.

b. Use a temperature sensor with a measurement sensitivity of 5°F or 1.0% of the temperature value, whichever is larger.

c. Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

d. Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

e. Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(d) *Regenerative carbon adsorbers*. If you are using a regenerative carbon adsorber as an add-on control device, you shall monitor the total regeneration desorbing gas mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with par. (a)3. to 5. and subds. 1. to 3.

1. The regeneration desorbing gas mass flow monitor shall be an integrating device having a measurement sensitivity of plus or minus 10% capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

2. The carbon bed temperature monitor shall be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

3. For all regenerative carbon adsorbers, you shall meet the requirements in par. (c)3.a. to e. for each temperature monitoring device.

(e) *Condensers*. If you are using a condenser, you shall monitor the product side condenser outlet gas temperature and comply with par. (a) and subds. 1. and 2.

1. The temperature monitor shall provide a gas temperature record at least once every 15 minutes.

2. For all condensers, you shall meet the requirements in par. (c)3. for each temperature monitoring device.

(f) *Concentrators*. If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you shall comply with the requirements in subds. 1. and 2.

1. You shall install a temperature monitor in the desorption gas stream. The temperature monitor shall meet the requirements in pars. (a) and (c)3.

2. You shall install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device shall meet the requirements in pars. (a) and (g)2.

(g) *Emission capture systems.* The capture system monitoring system shall comply with the applicable requirements in subds. 1. and 2.

1. For each flow measurement device, you shall meet the requirements in par. (a) and subd. 1.a. to g.

a. Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

b. Use a flow sensor with an accuracy of at least 10% of the flow.

c. Perform an initial sensor calibration in accordance with the manufacturer's requirements.

d. Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

e. Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

f. Perform leak checks monthly.

g. Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

2. For each pressure drop measurement device, you shall comply with the requirements in par. (a) and subd. 2.a. to g.

a. Locate the pressure sensor in or close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

b. Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5% of the measured value, whichever is larger.

c. Perform an initial calibration of the sensor according to the manufacturer's requirements.

d. Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

e. Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

f. Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection shall yield a stable sensor result for at least 15 seconds.

g. Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

Table 1

Operating Limits if Using the Emission Rate With Add-On Controls Option in s. NR 465.33(2)(c)

If you are required to comply with operating limits by s. NR 465.33(3)(c), you shall comply with the applicable operating limits in the following table.

For the following device:	You shall meet the following operating limit:	And you shall demonstrate continuous compliance with the operating limit by:
(1) Thermal oxidizer	(a) The average combustion temperature in any 3-hour period may not fall below the combustion temperature limit established according to s. NR 465.38(8)(a).	1. Collecting the combustion temperature data according to s. NR 465.38(9)(c); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
(2) Catalytic oxidizer	(a) The average temperature measured just before the catalyst bed in any 3-hour period may not fall below the limit established according to s. NR 465.38(8)(b); and either par. (b) or (c).	1. Collecting the temperature data according to s. NR 465.38(9)(c); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	(b) Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to s. NR 465.38(8)(b)2.	1. Collecting the temperature data according to s. NR 465.38(9)(c); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	(c) Develop and implement an inspection and maintenance plan according to s. NR 465.38(8)(b)4.	1. Maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by s. NR 465.38(8)(b)4., you shall take corrective action as soon as practicable consistent with the manufacturer's recommendations.

Table 1 (Continued)
Operating Limits if Using the Emission Rate With Add-On Controls Option in s. NR 465.33(2)©

For the following device:	You shall meet the following operating limit:	And you shall demonstrate continuous compliance with the operating limit by:
(3) Regenerative carbon adsorber	(a) The total regeneration desorbing gas mass flow for each carbon bed regeneration cycle may not fall below the total regeneration desorbing gas mass flow limit established according to s. NR 465.38(8)(c).	1. Measuring the total regeneration desorbing gas mass flow for each regeneration cycle according to s. NR 465.38(9)(d); and 2. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	(b) The temperature of the carbon bed, after completing each regeneration and any cooling cycle, may not exceed the carbon bed temperature limit established according to s. NR 465.38(8)(c).	1. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to s. NR 465.38(9)(d); and 2. Operating the carbon beds so that each carbon bed is not returned to service after completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
(4) Condenser	(a) The average condenser outlet gas temperature in any 3-hour period may not exceed the temperature limit established according to s. NR 465.38(8)(d).	1. Collecting the condenser outlet gas temperature according to s. NR 465.38(9)(e); 2. Reducing the data to 3- hour block averages; and 3. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
(5) Concentrators, including zeolite wheels and rotary carbon adsorbers	(a) The average gas temperature of the desorption concentrate stream in any 3-hour period may not fall below the limit established according to s. NR 465.38(8)(e).	1. Collecting the temperature data according to s. NR 465.38(9)(f); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average temperature at or above the temperature limit.
	(b) The average pressure drop of the dilute stream across the concentrator in any 3-hour period may not fall below the limit established according to s. NR 465.38(8)(e).	1. Collecting the pressure drop data according to s. NR 465.38(9)(f); 2. Reducing the pressure drop data to 3-hour block averages; and 3. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.

Table 1 (Continued)
Operating Limits if Using the Emission Rate With Add-On Controls Option in s. NR 465.33(2)(c)

For the following device:	You shall meet the following operating limit:	And you shall demonstrate continuous compliance with the operating limit by:
(6) Emission capture system that is a PTE according to s. NR 465.38(6)(a)	(a) The direction of the air flow at all times shall be into the enclosure; and either (b) or (c) shall be satisfied.	1. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to s. NR 465.38(9)(g)1. or the pressure drop across the enclosure according to s. NR 465.38(9)(g)2.; and 2. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	(b) The average facial velocity of air through all natural draft openings in the enclosure shall be at least 200 feet per minute.	1. See items (6)(a)1. and 2.
	(c) The pressure drop across the enclosure shall be at least 0.007 inch H_2O, as established in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).	1. See items (6)(a)1. and 2.
(7) Emission capture system that is not a PTE according to s. NR 465.38(6)(a)	(a) The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period may not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to s. NR 465.38(8)(f).	1. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to s. NR 465.38(9)(g); 2. Reducing the data to 3- hour block averages; and 3. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

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Table 2

Default Organic HAP Mass Fraction for Solvents and Solvent Blends

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction shall be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from Table 3 of this subchapter if neither the name or CAS number match.

Solvent or Solvent Blend	CAS No.	Average Organic HAP Mass Fraction	Typical Organic HAP, percent by mass
(1) Toluene	108-88-3	1.0	toluene
(2) Xylenes	1330-20-7	1.0	xylenes, ethylbenzene
(3) Hexane	110-54-3	0.5	n-hexane
(4) n-Hexane	110-54-3	1.0	n-hexane
(5) Ethylbenzene	100-41-4	1.0	ethylbenzene
(6) Aliphatic 140	-----	0	none
(7) Aromatic 100	-----	0.02	1% xylene, 1% cumene
(8) Aromatic 150	-----	0.09	naphthalene
(9) Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene
(10) Aromatic solvent	64742-94-5	0.1	naphthalene
(11) Exempt mineral spirits	8032-32-4	0	none
(12) Ligroines (VM & P)	8032-32-4	0	none
(13) Lactol spirits	64742-89-6	0.15	toluene
(14) Low aromatic white spirit	64742-82-1	0	none
(15) Mineral spirits	64742-88-7	0.01	xylenes
(16) Hydrotreated naphta	64742-48-9	0	none
(17) Hydrotreated light distillate	64742-82-1	0	none
(18) Stoddard solvent	8052-41-3	0.01	xylenes
(19) Super high-flash naphta	64742-95-6	0.05	xylenes
(20) Varsol® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene
(21) VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene
(22) Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl

Table 3

Default Organic HAP Mass Fraction for Petroleum Solvent Groups [a]

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

Solvent Type	Average Organic HAP Mass Fraction	Typical Organic HAP, percent by mass
Aliphatic [b]	0.03	1% Xylene, 1% Toluene and 1% Ethylbenzene.
Aromatic [c]	0.06	4% Xylene, 1% Toluene and 1% Ethylbenzene.

a Use this table only if the solvent blend does not match any of the solvent blends in Table 2 by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

b Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

c Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

SECTION 9. NR 465 Subchapter V to follow Table 3 of NR 465 Subchapter IV is created to read:

Subchapter V

Surface Coating of Miscellaneous Metal Parts and Products

NR 465.41 What this subchapter covers. (1) WHAT IS THE PURPOSE OF THIS SUBCHAPTER? This subchapter establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating facilities. This subchapter also establishes requirements to demonstrate initial and continuous compliance with the emission limits specified in s. NR 465.43(1).

Note: This subchapter is based on the federal regulations contained in 40 CFR part 63 Subpart MMMM, as last revised April 26, 2004.

(2) AM I SUBJECT TO THIS SUBCHAPTER? (a) Miscellaneous metal parts and products include metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household and consumer products. Except as provided in par. (c), the source category to which this subchapter applies is the surface coating of any miscellaneous metal parts or products, as described in subd. 1., and it includes the sub-categories listed in subds. 2. to 6.

1. Surface coating is the application of coating to a substrate. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with hand-held, non-refillable aerosol containers, touch-up markers, marking pens or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subchapter.

2. The general use coating sub-category includes all surface coating operations that are not high performance, magnet wire, rubber-to-metal or extreme performance fluoropolymer coating operations.

3. The high performance coating sub-category includes surface coating operations that are performed using coatings that meet the definition of high performance architectural coating or high temperature coating in s. NR 465.42(22).

4. The magnet wire coating sub-category includes surface coating operations that are performed using coatings that meet the definition of magnet wire coatings in s. NR 465.42(25).

5. The rubber-to-metal coatings sub-category includes surface coating operations that are performed using coatings that meet the definition of rubber-to-metal coatings in s. NR 465.42(38).

6. The extreme performance fluoropolymer coatings sub-category includes surface coating operations that are performed using coatings that meet the definition of extreme performance fluoropolymer coatings in s. NR 465.42(18).

(b) You are subject to this subchapter if you own or operate a new, reconstructed or existing affected source, as defined in sub. (3), that uses 946 liters (250 gallons) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in par. (a); and that is a major source, is located at a major source or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in s. NR 465.42(30) in determining whether you use 946 liters (250 gallons) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

(c) This subchapter does not apply to surface coating or a coating operation that meets any of the criteria of subds. 1. to 17.

1. A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to s. NR 465.46(2)(a).

2. Surface coating operations that occur at research or laboratory facilities, or are part of janitorial, building and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

3. Coatings used in volumes of less than 189 liters (50 gallons) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gallons) per year at the facility.

4. The surface coating of metal parts and products performed on-site at installations owned or operated by the armed forces of the United States, including the Coast Guard and the National Guard of any state, or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the armed forces of the United States, including the Coast Guard and the National Guard of any state.

5. Surface coating where plastic is extruded onto metal wire or cable or metal parts or products to form a coating.

6. Surface coating of metal components of wood furniture that meet the applicability criteria for wood furniture manufacturing in subch. I.

7. Surface coating of metal components of large appliances that meet the applicability criteria for large appliance surface coating in subch. III.

8. Surface coating of metal components of metal furniture that meet the applicability criteria for metal furniture surface coating in 40 CFR part 63, Subpart RRRR.

9. Surface coating of metal components of wood building products that meet the applicability criteria for wood building products surface coating in 40 CFR part 63, Subpart QQQQ.

10. Surface coating of metal components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework in 40 CFR part 63, Subpart GG.

11. Surface coating of metal parts intended for use in an aerospace vehicle or component using specialty coatings as defined in 40 CFR part 63, Subpart GG, Appendix A.

12. Surface coating of metal components of ships that meet the applicability criteria for shipbuilding and ship repair in 40 CFR part 63, Subpart II.

13. Surface coating of metal using a web coating process that meets the applicability criteria for paper and other web coating in 40 CFR part 63, Subpart JJJJ.

14. Surface coating of metal using a coil coating process that meets the applicability criteria for metal coil coating in 40 CFR part 63, Subpart SSSS.

15. Surface coating of boats or metal parts of boats, including the use of assembly adhesives, where the facility meets the applicability criteria for boat manufacturing facilities in 40 CFR part 63, Subpart VVVV, except where the surface coating of the boat is a metal coating operation performed on personal watercraft or parts of personal watercraft. This subchapter does apply to metal coating operations performed on personal watercraft and parts of personal watercraft.

16. Surface coating of assembled on-road vehicles that meet the applicability criteria for the assembled on-road vehicle sub-category in plastic parts and products surface coating in subch. IV.

17. Surface coating of metal components of automobiles and light-duty trucks that meets the applicability criteria in 40 CFR 63.3082(b) for the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, at a facility that meets the applicability criteria in 40 CFR 63.3081(b).

(d) If your facility meets the applicability criteria in 40 CFR 63.3081(b) of the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, and you perform surface coating of metal parts or products that meets both the applicability criteria in 40 CFR 63.3082(c) and the applicability criteria of this subchapter, then, for the surface coating of any or all of your metal parts or products that meets the applicability criteria in 40 CFR 63.3082(c), you may choose to comply with the requirements of 40 CFR part 63, Subpart IIII, in lieu of complying with the requirements in this subchapter. Surface coating operations on metal parts or products not intended for use in automobiles or light-duty trucks, such as parts for motorcycles or lawn mowers, cannot be made part of your affected source under 40 CFR part 63, Subpart IIII.

(e) If you own or operate an affected source that meets the applicability criteria of this subchapter and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in 40 CFR part 63 or this chapter, you may choose to comply as specified in subd. 1., 2. or 3.

1. You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

2. You may comply with the emission limit representing the predominant surface coating activity at your facility, as determined according to subd. 2.a. and b. However, you may not establish high performance, rubber-to-metal or extreme performance fluoropolymer coating operations as the predominant activity. You may not consider any

surface coating activity that is subject to the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, in determining the predominant surface coating activity at your facility.

a. If a surface coating operation accounts for 90% or more of the surface coating activity at your facility, which is the predominant activity, then compliance with the emission limits of the predominant activity for all surface coating operations, as provided in s. NR 465.43(1)(c)1., constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you shall include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than one percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than one percent of coating activities need not be included in the determination of predominant activity but shall be included in the compliance calculation.

b. You shall use liters (gallons) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content, such as design specifications for the parts or products coated and the number of items produced. The determination of predominant activity shall accurately reflect current and projected coating operations and shall be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content shall be approved by the administrator. You may use data for any reasonable time period of at least one year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the administrator. You shall determine the predominant activity at your facility and submit the results of that determination with the initial notification required by s. NR 465.45(1)(b). You shall also determine predominant activity annually and include the determination in the next semi-annual compliance report required by s. NR 465.45(2)(a).

3. You may comply with a facility-specific emission limit, as provided in s. NR 465.43(1)(c)2., calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limits specified in s. NR 465.43(1)(a) and (b) for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you shall include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than one percent of total coating activities at your facility. You may not consider any surface coating activity that is subject to the surface

coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than one percent of total coating activities need not be included in the calculation of the facility-specific emission limit but shall be included in the compliance calculations.

(3) WHAT PARTS OF MY PLANT DOES THIS SUBCHAPTER COVER? (a) This subchapter applies to each new, reconstructed and existing affected source within each of the 5 sub-categories listed in s. NR 465.41(2)(a).

(b) The affected source is the collection of all of the items listed in subds. 1. to 4. that are used for surface coating of miscellaneous metal parts and products within each sub-category.

1. All coating operations.

2. All storage containers and mixing vessels in which coatings, thinners and other additives, and cleaning materials are stored or mixed.

3. All manual and automated equipment and containers used for conveying coatings, thinners and other additives, and cleaning materials.

4. All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after August 13, 2002 and the construction is of a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility had existed.

(d) An affected source is reconstructed if it meets the criteria as defined in s. NR 460.02(32).

(e) An affected source is existing if it is not new or reconstructed.

(4) WHEN DO I HAVE TO COMPLY WITH THIS SUBCHAPTER? The date by which you shall comply with this subchapter is called the compliance date. The compliance date for each type of affected source is specified in pars. (a) to (c). The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in ss. NR 465.46(1), 465.47(1) and 465.48(1).

(a) For a new or reconstructed affected source, the compliance date is the applicable date in subd. 1. or 2.

1. If the initial startup of your new or reconstructed affected source is on or before January 2, 2004, the compliance date is January 2, 2004.

2. If the initial startup of your new or reconstructed affected source occurs after January 2, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is January 2, 2007.

(c) For an area source that increases its emissions or its potential to emit so that it becomes a major source of HAP emissions, the compliance date is specified in subds. 1. and 2.

1. For any portion of the source that becomes a new or reconstructed affected source subject to this subchapter, the compliance date is the date of initial startup of the affected source or January 2, 2004, whichever is later.

2. For any portion of the source that becomes an existing affected source subject to this subchapter, the compliance date is the date one year after the area source becomes a major source or January 2, 2007, whichever is later.

(d) You shall meet the notification requirements in s. NR 465.45(1) according to the dates specified in that section and in ch. NR 460. Some of the notifications need to be submitted before the compliance dates described in pars. (a) to (c).

NR 465.42 Definitions that apply to this subchapter. For terms not defined in this section, the definitions contained in chs. NR 400 and 460 apply to the terms in this subchapter, with definitions in ch. NR 460 taking precedence over definitions in ch. NR 400. If this section defines a term which is also defined in ch. NR 400 or 460, the definition in this section applies in this subchapter. In this subchapter:

(1) "Additive" means a material that is added to a coating after purchase from a supplier, such as catalysts, activators and accelerators.

(2) "Add-on control" means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

(3) "Adhesive" or "adhesive coating" means any chemical substance that is applied for the purpose of bonding 2 surfaces together. Products used on humans and animals, adhesive tape, contact paper or any other product with an adhesive incorporated onto or in an inert substrate is not considered adhesives under this subchapter.

(4) "Assembled on-road vehicle coating" means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use, including

components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles, including camping trailers and fifth wheels. Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the automobiles and light-duty trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants and caulks used in assembling on-road vehicles.

(5) "Capture device" means a hood, enclosure, room, floor sweep or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

(6) "Capture efficiency" or "capture system efficiency" means the portion, expressed as a percentage, of the pollutants from an emission source that is delivered to an add-on control device.

(7) "Capture system" means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flash-off, drying or curing. As used in this subchapter, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

(8) "Cleaning material" means a solvent used to remove contaminants and other materials, such as dirt, grease, oil and dried or wet coating, from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

(9) "Coating" means a material applied to a substrate for decorative, protective or functional purposes. Coating materials include paints, sealants, liquid plastic coatings, caulks, inks, adhesives and masking agents. Decorative, protective or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subchapter. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride in solution, also referred to as a plastisol.

(10) "Coating operation" means equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried coating; to apply coating to a substrate and to dry or cure the coating after

application; or to clean coating operation equipment. A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with hand-held, non-refillable aerosol containers, touch-up markers or marking pens is not a coating operation for the purposes of this subchapter.

(11) "Coatings solids" means the nonvolatile portion of the coating that makes up the dry film.

(12) "Continuous parameter monitoring system" or "CPMS" means the total equipment that may be required to meet the data acquisition and availability requirements of this subchapter, used to sample, condition, if applicable, analyze and provide a record of coating operation, or capture system, or add-on control device parameters.

(13) "Controlled coating operation" means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

(14) "Deviation" means any instance in which an affected source subject to this subchapter, or an owner or operator of an affected source, does any of the following:

(a) Fails to meet any requirement or obligation established by this subchapter, including any emission limit or operating limit or work practice standard.

(b) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subchapter and that is included in the operating permit for any affected source required to obtain an operating permit.

(c) Fails to meet any emission limit, or operating limit, or work practice standard in this subchapter during startup, shutdown and normal operation, regardless of whether or not the failure is permitted by this subchapter.

(15) "Emission limit" means the aggregate of all requirements associated with a compliance option including emission limit, operating limit and work practice standard.

(16) "Enclosure" means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

(17) "Exempt compound" means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in s. NR 400.02(162).

(18) "Extreme performance fluoropolymer coating" means coatings that are formulated systems based on fluoropolymer resins which often contain bonding matrix polymers dissolved in non-aqueous solvents as well as other

ingredients. Extreme performance fluoropolymer coatings are typically used when one or more critical performance criteria are required including a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties or that the surface comply with government or third party specifications for health, safety, reliability or performance. Once applied to a substrate, extreme performance fluoropolymer coatings undergo a curing process that typically requires high temperatures, a chemical reaction or other specialized technology.

(19) "Facility maintenance" means the routine repair or renovation, including the surface coating, of the tools, equipment, machinery and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

(20) "General use coating" means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating or extreme performance fluoropolymer coating.

(21) "High performance architectural coating" means any coating applied to architectural subsections which is required to meet the specifications of American Architectural Manufacturer Association's publication number AAMA 2604-02, incorporated by reference in s. NR 484.11(1).

(22) "High performance coating" means any coating that meets the definition in this section of high performance architectural coating or high temperature coating.

(23) "High temperature coating" means any coating applied to a substrate which during normal use shall withstand temperatures of at least 1000 degrees Fahrenheit.

(24) "Hobby shop" means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

(25) "Initial startup" means the first time equipment is brought on line in a facility.

(26) "Magnet wire coatings", commonly referred to as "magnet wire enamels", are applied to a continuous strand of wire which will be used to make turns, or windings, in electrical devices such as coils, transformers or motors. Magnet wire coatings provide high dielectric strength and turn-to-turn conductor insulation. This allows the turns of an electrical device to be placed in close proximity to one another which leads to increased coil effectiveness and electrical efficiency.

(27) "Magnet wire coating machine" means equipment which applies and cures magnet wire coatings.

(28) "Manufacturer's formulation data" means data on a material, such as a coating, that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in s. NR 465.46(2). Manufacturer's formulation data may include information on density, organic HAP content, volatile organic matter content and coating solids content.

(29) "Mass fraction of organic HAP" means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg (lb) of organic HAP per kg (lb) of material.

(30) "Month" means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

(31) "Non-HAP coating" means, for the purposes of this subchapter, a coating that contains no more than 0.1% by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0% by mass for any other individual HAP.

(32) "Organic HAP content" means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using Equation 2 of s. NR 465.46(2). The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

(33) "Permanent total enclosure" or "PTE" means a permanently installed enclosure that meets the criteria of Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR. 484.04(9), for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

(34) "Personal watercraft" means a boat which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

(35) "Protective oil" means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes lubricating oils, evaporative oils, including those that evaporate completely, and extrusion oils. Protective oils used on miscellaneous metal parts and products include magnet wire lubricants and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component.

(36) "Reactive adhesive" means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70% of the liquid components of the system, excluding water, react during the process.

(37) "Research or laboratory facility" means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

(38) "Responsible official" has the meaning given in s. NR 400.02(136).

(39) "Rubber-to-metal coatings" are coatings that contain heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dry to a non-tacky surface and react chemically with the rubber and metal during a vulcanization process.

(40) "Surface preparation" means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

(41) "Temporary total enclosure" means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).

(42) "Thinner" means an organic solvent that is added to a coating after the coating is received from the supplier.

(43) "Total volatile hydrocarbon" or "TVH" means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A to 204F in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

(44) "Uncontrolled coating operation" means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

(45) "Volume fraction of coating solids" means the ratio of the volume of coating solids, also known as the volume of nonvolatiles, to the volume of a coating in which it is contained, liters (gallons) of coating solids per liter (gallon) of coating.

(46) "Wastewater" means water that is generated in a coating operation and is collected, stored or treated prior to being discarded or discharged.

(47) "You" or "your" means the owner or operator of a facility that applies coatings to miscellaneous metal parts or products.

NR 465.43 Emission limits. (1) WHAT EMISSION LIMITS MUST I MEET? (a) For a new or reconstructed affected source, you shall limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in subds. 1. to 5., except as specified in par. (c), determined according to the requirements in s. NR 465.46(2), 465.47(2) or 465.48(2).

1. For each new or reconstructed general use coating affected source, limit organic HAP emissions to no more than 0.23 kilograms (kg) (1.9 pounds (lb)) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

2. For each new or reconstructed high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

3. For each new or reconstructred magnet wire coating affected source, limit organic HAP emissions to no more than 0.050 kg (0.44 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

4. For each new or reconstructed rubber-to-metal coating affected source, limit organic HAP emissions to no more than 0.81 kg (6.8 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

5. For each new or reconstructed extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

(b) For an existing affected source, you shall limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in subds. 1. to 5., except as specified in par. (c), determined according to the requirements in s. NR 465.46(2), 465.47(2) or 465.48(2).

1. For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

2. For each existing high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

3. For each existing magnet wire coating affected source, limit organic HAP emissions to no more than 0.12 kg (1.0 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

4. For each existing rubber-to-metal coating affected source, limit organic HAP emissions to no more than 4.5 kg (37.7 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

5. For each existing extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lb) of organic HAP per liter (gallon) of coating solids used during each 12-month compliance period.

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the sub-category emission limits specified in par. (a) or (b), you may comply separately with each sub-category emission limit or comply using one of the alternatives in subd. 1. or 2.

1. If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in par. (a)1. or 3. or (b)1. or 3. account for 90% or more of the surface coating activity at your facility, then compliance with that one emission limit in this subchapter for all surface coating operations constitutes compliance with the other applicable emission limits. You shall use liters (gallons) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content. The determination of predominant activity shall accurately reflect current and projected coating operations and shall be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content shall be approved by the administrator. You may use data for any reasonable time period of at least one year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the administrator. You shall determine the predominant activity at your facility and submit the results of that determination with the initial notification required by s. NR 465.45(1)(b). Additionally, you shall determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by s. NR 465.45(2)(a).

Note: An example of parameters other than coating consumption and mass solids content for estimating the relative mass of coating solids used would be design specifications for the parts or products coated and the number of items produced.

2. You may calculate and comply with a facility-specific emission limit as described in subd. 2.a. to c. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limits specified in pars. (a) and (b) for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you shall include coating activities that meet the applicability criteria of the other sub-categories and constitute more than one percent of total coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than one percent of coating activities need not be included in the determination of predominant activity but shall be included in the compliance calculation.

a. You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in s. NR 465.45(1)(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

b. Use Equation 1 of this subsection to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period:

$$\text{Facility - Specific Emission Limit} = \frac{\sum_{i=1}^{n} (\text{Limit}_i)(\text{Solids}_i)}{\sum_{i=1}^{n} (\text{Solids}_i)} \qquad \text{(Equation 1)}$$

where:

Facility-specific emission limit is the facility-specific emission limit for each 12-month compliance period, kg (lb) of organic HAP per kg (lb) of coating solids used

Limit_i is the new source or existing source emission limit as specified in s. NR 465.43(1) applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) of organic HAP per kg (lb) of coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit shall be in the same units.

Solids_i is the liters (gallons) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i, as specified in s. NR 465.43(1). You may estimate the volume of coating solids used from parameters other than coating consumption and volume solids content, such as design specifications for the parts or

products coated and the number of items produced. The use of parameters other than coating consumption and volume solids content shall be approved by the administrator.

n is the number of different coating operations included in the facility-specific emission limit

c. If you need to convert an emission limit in another surface coating NESHAP from kg (lb) of organic HAP per kg (lb) of coating solids used to kg (lb) of organic HAP per liter (gallon) of coating solids used, you shall use the default solids density of 1.26 kg of solids per liter of coating solids (10.5 lb of solids per gallon of coating solids).

(2) WHAT ARE MY OPTIONS FOR MEETING THE EMISSION LIMITS? You shall include all coatings, thinners and other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in sub. (1). To make this determination, you shall use at least one of the 3 compliance options listed in pars. (a) to (c). You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you shall document this switch as required by s. NR 465.45(3)(c), and you shall report it in the next semiannual compliance report required in s. NR 465.45(2).

(a) *Compliant material option*. You shall meet all the requirements of s. NR 465.46 to demonstrate compliance with the applicable emission limit in sub. (1) using this option. To use this option, you shall demonstrate that the organic HAP content of each coating used in the coating operation or operations is less than or equal to the applicable emission limit in sub. (1), and that each thinner and other additive, and cleaning material used contains no organic HAP.

(b) *Emission rate without add-on controls option*. You shall meet all the requirements of s. NR 465.47 to demonstrate compliance with the emission limit in sub. (1) using this option. To use this option, you shall demonstrate that, based on the coatings, thinners and other additives, and cleaning materials used in the coating operation or operations, the organic HAP emission rate for the coating operation or operations is less than or equal to the applicable emission limit in sub. (1), calculated as a rolling 12-month emission rate and determined on a monthly basis.

(c) *Emission rate with add-on controls option.* You shall meet all the requirements of s. NR 465.48 to demonstrate compliance with the emission limits in sub. (1), the operating limits in sub. (3) and the work practice standards in sub. (4) using this option. To use this option, you shall demonstrate that, based on the coatings, thinners and other additives, and cleaning materials used in the coating operation or operations, and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation or operations is less than or equal to the applicable emission limit in sub. (1), calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you shall also demonstrate that all emission capture systems and add-on control devices for the coating operation or operations meet the operating limits required in sub. (3), except for solvent recovery systems for which you conduct liquid-liquid material balances according to s. NR 465.48(2)(j), and that you meet the work practice standards required in sub. (4).

(3) WHAT OPERATING LIMITS MUST I MEET? (a) For any coating operation or operations on which you use the compliant material option specified in sub. (2)(a) or the emission rate without add-on controls option specified in sub. (2)(b), you are not required to meet any operating limits.

(b) For any controlled coating operation or operations on which you use the emission rate with add-on controls option specified in sub. (2)(c), except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to s. NR 465.48(2)(j), you shall meet the operating limits specified in Table 1 of this subchapter. These operating limits apply to the emission capture and control systems on the coating operations for which you use this option, and you shall establish the operating limits during the performance test according to the requirements in s. NR 465.48(8). You shall meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 of this subchapter, or wish to monitor an alternative parameter and comply with a different operating limit, you shall apply to the administrator for approval of alternative monitoring under 40 CFR 63.8(f).

(4) WHAT WORK PRACTICE STANDARDS SHALL I MEET? (a) For any coating operation or operations on which you use the compliant material option specified in sub. (2)(a) or the emission rate without add-on controls option specified in sub. (2)(b), you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option in sub. (2)(c), you shall develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing and conveying of coatings, thinners, other additives and cleaning materials used in, and waste materials generated by the controlled coating operations for

which you use this option; or you shall meet an alternative standard as provided in par. (c). The plan shall specify practices and procedures to ensure that, at a minimum, the elements specified in subds. 1. to 5. are implemented.

1. All organic-HAP-containing coatings, thinners, other additives, cleaning materials and waste materials shall be stored in closed containers.

2. Spills of organic-HAP-containing coatings, thinners, other additives, cleaning materials and waste materials shall be minimized.

3. Organic-HAP-containing coatings, thinners, other additives, cleaning materials and waste materials shall be conveyed from one location to another in closed containers or pipes.

4. Mixing vessels which contain organic-HAP-containing coatings and other materials shall be closed except when adding to, removing or mixing the contents.

5. Emissions of organic HAP shall be minimized during cleaning of storage, mixing and conveying equipment.

(c) As provided in 40 CFR 63.6(g), the U. S. EPA may choose to grant you permission to use an alternative to the work practice standards in this subsection.

NR 465.44 General compliance requirements. (1) WHAT ARE MY GENERAL REQUIREMENTS FOR COMPLYING WITH THIS SUBCHAPTER? (a) You shall be in compliance with the emission limits in this subchapter as specified in subds. 1. and 2.

1. Any coating operation or operations for which you use the compliant material option or the emission rate without add-on controls option shall be, as specified in s. NR 465.43(2)(a) and (b), in compliance with the applicable emission limit in s. NR 465.43(1) at all times.

2. Any coating operation or operations for which you use the emission rate with add-on controls option shall be, as specified in s. NR 465.43(2)(c), in compliance with the emission limits as specified in subd. 2.a. to c.

a. The coating operation or operations shall be in compliance with the applicable emission limit in s. NR 465.43(1) at all times except during periods of startup, shutdown and malfunction.

b. The coating operation or operations shall be in compliance with the operating limits for emission capture systems and add-on control devices required by s. NR 465.43(3) at all times except during periods of startup, shutdown

and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to s. NR 465.48(2)(j).

c. The coating operation or operations shall be in compliance with the work practice standards in s. NR 465.43(4) at all times.

(b) You shall always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subchapter, according to the provisions in s. NR 460.05(4)(a)1.

(c) If your affected source uses an emission capture system and add-on control device, you shall develop and implement a written startup, shutdown and malfunction plan according to the provisions in s. NR 460.05(4)(c). The plan shall address the startup, shutdown and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan shall also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

(2) WHAT PARTS OF THE GENERAL PROVISIONS APPLY TO ME? You shall comply with the applicable general provisions requirements in ch. NR 460. Appendix MMMM in ch. NR 460 shows which parts of the general provisions in ch. NR 460 apply to you.

NR 465.45 Notifications, reports and records. (1) WHAT NOTIFICATIONS MUST I SUBMIT? (a) *General*. You shall submit the notifications in ss. NR 460.06(2), 460.07(6)(c) and 460.08(2) to (5) and (8) that apply to you by the dates specified in those sections, except as provided in pars. (b) and (c).

(b) *Initial notification*. You shall submit the initial notification required by s. NR 460.08(2) for a new or reconstructed affected source no later than 120 days after initial startup. For an existing affected source, you shall submit the initial notification no later than one year after January 2, 2004. If you are using compliance with the surface coating of automobiles and light-duty trucks NESHAP in 40 CFR part 63, Subpart IIII, as provided for under s. NR 465.41(2)(d) to constitute compliance with this subchapter for any or all of your metal parts coating operations, then you shall include a statement to this effect in your initial notification, and no other notifications are required under this subchapter in regard to those metal parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under s. NR 465.41(2)(e)2. to constitute compliance with this

subchapter for your metal parts coating operations, then you shall include a statement to this effect in your initial notification, and no other notifications are required under this subchapter in regard to those metal parts coating operations.

(c) *Notification of compliance status*. You shall submit the notification of compliance status required by s. NR 460.08(8) no later than 30 calendar days following the end of the initial compliance period described in s. NR 465.46(1), 465.47(1) or 465.48(1) that applies to your affected source. The notification of compliance status shall contain the information specified in subds. 1. to 11. and in s. NR 460.08(8).

1. Company name and address.

2. Statement by a responsible official with that official's name, title and signature, certifying the truth, accuracy and completeness of the content of the report.

3. Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in s. NR 465.46(1), 465.47(1) or 465.48(1) that applies to your affected source.

4. Identification of the compliance option or options specified in s. NR 465.43(2) that you used on each coating operation in the affected source during the initial compliance period.

5. Statement of whether or not the affected source achieved the emission limits in s. NR 465.43(1) for the initial compliance period.

6. If you had a deviation, include the information in subd. 6.a. and b.

a. A description and statement of the cause of the deviation.

b. If you failed to meet the applicable emission limit in s. NR 465.43(1), include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gallon) of coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

7. For each of the data items listed in subd. 7.a. to d. that is required by the compliance option you used to demonstrate compliance with the emission limit in s. NR 465.43(1), include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to s. NR 465.46(2)(a), (b) or (c). You do not need to submit copies of any test reports.

a. Mass fraction of organic HAP for one coating, for one thinner or other additive, and for one cleaning material.

b. Volume fraction of coating solids for one coating.

c. Density for one coating, one thinner or other additive, and one cleaning material, except that if you use the compliant material option in s. NR 465.43(2)(a), only the example coating density is required.

d. The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of s. NR 465.47(2).

8. The calculation of kg (lb) of organic HAP emitted per liter (gallon) of coating solids used for the compliance options you used, as specified in subd. 8.a. to c.

a. For the compliant material option in s. NR 465.43(2)(a), provide an example calculation of the organic HAP content for one coating, using Equation 2 of s. NR 465.46(2).

b. For the emission rate without add-on controls option specified in s. NR 465.43(2)(b), provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total volume of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A to 1C, 2 and 3, respectively, of s. NR 465.47(2).

c. For the emission rate with add-on controls option specified in s. NR 465.43(2)(c), provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and other additives, and cleaning materials used each month, using Equations 1 and 1A to 1C of s. NR 465.47(2); the calculation of the total volume of coating solids used each month using Equation 2 of s. NR 465.47(2); the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A to 1D of s. NR 465.48(2) and Equations 2, 3 and 3A to 3C of s. NR 465.48(2) as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of s. NR 465.48(2); and the calculation of the 12-month organic HAP emission rate using Equation 5 of s. NR 465.48(2).

9. For the emission rate with add-on controls option specified in s. NR 465.43(2)(c), you shall include the information specified in subd. 9.a. to d., except that the requirements in subd. 9.a. to c. do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to s. NR 465.48(2)(j).

a. For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted and any calculations supporting the capture efficiency determination. If you

use the data quality objective (DQO) or lower confidence limit (LCL) approach, you shall also include the statistical calculations to show you meet the DQO or LCL criteria in 40 CFR part 63, Subpart KK, Appendix A, incorporated by reference in s. NR 484.04(24). You do not need to submit complete test reports.

b. A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

c. A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

d. A statement of whether or not you developed and implemented the work practice plan required by s. NR 465.43(4).

10. If you are complying with a single emission limit representing the predominant activity under s. NR 465.43(1)(c)1., include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in s. NR 465.43(1)(c)1.

11. If you are complying with a facility-specific emission limit under s. NR 465.43(1)(c)2., include the calculation of the facility-specific emission limit and any supporting information as specified in s. NR 465.43(1)(c)2.

(2) WHAT REPORTS MUST I SUBMIT? (a) *Semiannual compliance reports*. You shall submit semiannual compliance reports for each affected source according to the requirements of subds. 1. to 7. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act, as specified in subd. 2.

1. 'Dates'. Unless the department has approved or agreed to a different schedule for submission of reports under s. NR 460.09(1), you shall prepare and submit each semiannual compliance report according to the dates specified in subd. 1.a. to d . The information reported for each of the months in the reporting period shall be based on the last 12 months of data prior to the date of each monthly calculation.

a. The first semiannual compliance report shall cover the first semiannual reporting period, which begins the day after the end of the initial compliance period described in s. NR 465.46(1), 465.47(1) or 465.48(1) that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

b. Each subsequent semiannual compliance report shall cover the subsequent semiannual reporting period from January 1 to June 30 or the semiannual reporting period from July 1 to December 31.

c. Each semiannual compliance report shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

d. For each affected source that is subject to permitting regulations pursuant to ch. NR 407, and if the department has established dates for submitting semiannual reports pursuant to s. NR 407.09(1)(c)3.a., you may submit the first and subsequent compliance reports according to those dates instead of according to the date specified in subd. 1.c.

2. 'Inclusion with title V report'. Each affected source that has obtained a title V operating permit pursuant to ch. NR 407 shall report all deviations in the semiannual monitoring report required by s. NR 407.09(1)(c)3.a. If an affected source submits a semiannual compliance report pursuant to this subsection along with, or as part of, the semiannual monitoring report required by s. NR 407.09(1)(c)3.a., and the semiannual compliance report includes all required information concerning deviations from any emission limit in s. NR 465.43(1), its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report may not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the department.

3. 'General requirements'. The semiannual compliance report shall contain the information specified in subd. 3.a. to g., and the information specified in subds. 4. to 7. and par. (c)1. that is applicable to your affected source.

a. Company name and address.

b. Statement by a responsible official with that official's name, title and signature, certifying the truth, accuracy and completeness of the content of the report.

c. Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. The information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

d. Identification of the compliance option or options specified in s. NR 465.43(2) that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you shall report the beginning and ending dates for each option you used.

e. If you used the emission rate without add-on controls option or the emission rate with add-on controls option in s. NR 465.43(2)(b) or (c), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

f. If you used the predominant activity alternative in s. NR 465.43(1)(c)1., include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

g. If you used the facility-specific emission limit alternative in s. NR 465.43(1)(c)2., include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

4. 'No deviations'. If there were no deviations from the emission limits in s. NR 465.43(1), (3) and (4) that apply to you, the semiannual compliance report shall include a statement that there were no deviations from the emission limits during the reporting period. If you used the emission rate with add-on controls option specified in s. NR 465.43(2)(c) and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in s. NR 460.07(3)(g), the semiannual compliance report shall include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

5. 'Deviations: compliant material option'. If you used the compliant material option in s. NR 465.43(2)(a) and there was a deviation from the applicable organic HAP content requirements in s. NR 465.43(1), the semiannual compliance report shall contain the information in subd. 5.a. to d.

a. Identification of each coating used that deviated from the applicable emission limit in s. NR 465.43(1), and each thinner, other additive and cleaning material used that contained organic HAP, and the dates and time periods each was used.

b. The calculation of the organic HAP content, using Equation 2 of s. NR 465.46(2), for each coating identified in subd. 5.a. You do not need to submit background data supporting this calculation, such as information provided by coating suppliers or manufacturers, or test reports.

c. The determination of mass fraction of organic HAP for each thinner, other additive and cleaning material identified in subd. 5.a. You do not need to submit background data supporting this calculation, such as information provided by material suppliers or manufacturers, or test reports.

d. A statement of the cause of each deviation.

6. 'Deviations: emission rate without add-on controls option'. If you used the emission rate without add-on controls option in s. NR 465.43(2)(b) and there was a deviation from the applicable emission limit in s. NR 465.43(1), the semiannual compliance report shall contain the information in subd. 6.a. to c.

a. The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in s. NR 465.43(1).

b. The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You shall submit the calculations for Equations 1, 1A to 1C, 2, and 3 of s. NR 465.47(2); and if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.47(2)(e)4. You do not need to submit background data supporting these calculations, such as information provided by materials suppliers or manufacturers, or test reports.

c. A statement of the cause of each deviation.

7. 'Deviations: emission rate with add-on controls option'. If you used the emission rate with add-on controls option in s. NR 465.43(2)(c) and there was a deviation from an emission limit in s. NR 465.43(1), including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere, the semiannual compliance report shall contain the information in subd. 7.a. to n. This includes periods of startup, shutdown and malfunction during which deviations occurred.

a. The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in s. NR 465.43(1).

b. The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You shall provide the calculation of the total mass of organic HAP emissions for the coatings, thinners, other additives and cleaning materials used each month using Equations 1 and 1A to 1C of s. NR 465.47(2); and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.47(2)(e)4.; the calculation of the total volume of coating solids used each month using Equation 2 of s. NR 465.47(2); the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A to 1D of s. NR 465.48(2), and Equations 2, 3 and 3A to 3C of s. NR 465.48(2), as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of s. NR 465.48(2); and the calculation of the 12-month organic HAP emission rate using Equation 5 of s. NR 465.48(2). You do not need to submit the background data supporting these calculations, such as information provided by materials suppliers or manufacturers, or test reports.

c. The date and time that each malfunction started and stopped.

d. A brief description of the CPMS.

e. The date of the latest CPMS certification or audit.

f. The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

g. The date, time and duration that each CPMS was out-of-control, including the information in s. NR 460.07(3)(h).

h. The date and time period of each deviation from an operating limit in Table 1 of this subchapter; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown or malfunction or during another period.

i. A summary of the total duration of each deviation from an operating limit in Table 1 of this subchapter and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

j. A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subchapter and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes and other unknown causes.

k. A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

L. A description of any changes in the CPMS, coating operation, emission capture system or add-on control device since the last semiannual reporting period.

m. For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation and the actions you took to correct the deviation.

n. A statement of the cause of each deviation.

(b) *Performance test reports*. If you use the emission rate with add-on controls option in s. NR 465.43(2)(c), you shall submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in s. NR 460.09(4)(b).

(c) *Startup, shutdown, malfunction reports*. If you used the emission rate with add-on controls option in s. NR 465.43(2)(c) and you had a startup, shutdown or malfunction during the semiannual reporting period, you shall submit the reports specified in subds. 1. and 2.

1. If your actions were consistent with your startup, shutdown and malfunction plan, you shall include the information specified in s. NR 460.09(4) in the semiannual compliance report required by par. (a).

2. If your actions were not consistent with your startup, shutdown and malfunction plan, you shall submit an immediate startup, shutdown and malfunction report as described in subd. 2.a. and b.

a. You shall describe the actions taken during the event in a report delivered by facsimile, telephone or other means to the department within 2 working days after starting actions that are inconsistent with the plan.

b. You shall submit a letter to the department within 7 working days after the end of the event, unless you have made alternative arrangements with the department as specified in s. NR 460.09(4)(e)2. The letter shall contain the information specified in s. NR 460.09(4)(e)2.

(3) WHAT RECORDS MUST I KEEP? You shall collect and keep records of the data and information specified in pars. (a) to (k). Failure to collect and keep the following records is a deviation from the applicable standard:

(a) A copy of each notification and report that you submitted to comply with this subchapter, and the documentation supporting each notification and report. If you are using the predominant activity alternative under s. NR 465.43(1)(c)1., you shall keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under s. NR 465.43(1)(c)2., you shall keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You shall also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner, other additive and cleaning material, and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density or volume fraction of coating solids, you shall keep a copy of the complete test report. If you used information provided to you by the manufacturer or supplier of the material that was based on testing, you shall keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in subds. 1. to 4.:

1. A record of the coating operations on which you used each compliance option and the time periods, beginning and ending dates and times, for each option you used.

2. For the compliant material option in s. NR 465.43(2)(a), a record of the calculation of the organic HAP content for each coating, using Equation 2 of s. NR 465.46(2).

3. For the emission rate without add-on controls option in s. NR 465.43(2)(b), a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners, other additives and cleaning materials used each month using Equations 1, 1A to 1C and 2 of s. NR 465.47(2); and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.47(2)(e)4.; the calculation of the total volume of coating solids used each month using Equation 2 of s. NR 465.47(2); and the calculation of each 12-month organic HAP emission rate using Equation 3 of s. NR 465.47(2).

4. For the emission rate with add-on controls option in s. NR 465.43(2)(c), records of all the calculations specified in subd. 4.a. to e.

a. The calculation of the total mass of organic HAP emissions for the coatings, thinners, other additives and cleaning materials used each month using Equations 1 and 1A to 1C of s. NR 465.47(2) and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to s. NR 465.47(2)(e)4.

b. The calculation of the total volume of coating solids used each month using Equation 2 of s. NR 465.47(2).

c. The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A to 1D of s. NR 465.48(2) and Equations 2, 3 and 3A to 3C of s. NR 465.48(2), as applicable.

d. The calculation of each month's organic HAP emission rate using Equation 4 of s. NR 465.48(2).

e. The calculation of each 12-month organic HAP emission rate using Equation 5 of s. NR 465.48(2).

(d) A record of the name and volume of each coating, thinner, other additive and cleaning material used during each compliance period. If you are using the compliant material option in s. NR 465.43(2)(a) for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and other additive, and cleaning material used during each compliance period unless the material is tracked by weight.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) If you use either the emission rate without add-on controls option in s. NR 465.43(2)(b) or the emission rate with add-on controls compliance option in s. NR 465.43(2)(c), the density for each coating, thinner, other additive and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of s. NR 465.47(2) for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to s. NR 465.47(2)(e)4., you shall keep records of the information specified in subds. 1. to 3.

1. The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of s. NR 465.47(2); a statement of which subparts under 40 CFR parts 262, 264, 265 and 266 apply to the facility; and the date of each shipment.

2. Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of s. NR 465.47(2).

3. The methodology used in accordance with s. NR 465.47(2)(e)4. to determine the total amount of waste materials sent to or the amount collected, stored and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. You shall include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring and supporting calculations and documentation, including the waste manifest for each shipment.

(j) You shall keep records of the date, time and duration of each deviation.

(k) If you use the emission rate with add-on controls option in s. NR 465.43(2)(c), you shall keep the records specified in subds. 1. to 8.

1. For each deviation, a record of whether the deviation occurred during a period of startup, shutdown or malfunction.

2. The records in s. NR 460.05(4)(c)3. to 5. related to startup, shutdown and malfunction.

3. The records required to show continuous compliance with each operating limit specified in Table 1 of this subchapter that applies to you.

4. For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for a PTE and has a capture efficiency of 100%, as specified in s. NR 465.48(6)(a).

5. For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in s. NR 465.48(5) and (6)(b) to (e), including the records specified in subd. 5.a. to c. that apply to you.

a. For a liquid-to-uncaptured gas protocol using a temporary total enclosure or building enclosure, records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 204F in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for each material used in the coating operation or operations, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for either a temporary total enclosure or a building enclosure.

b. For a gas-to-gas protocol using a temporary total enclosure or a building enclosure, records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or 204C in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or 204E in 40 CFR part 51, Appendix M, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 in 40 CFR part 51, Appendix M for either a temporary total enclosure or a building enclosure.

c. For an alternative protocol, records needed to document a capture efficiency determination using an alternative method or protocol as specified in s. NR 465.48(6)(e), if applicable.

6. The records specified in subd. 6.a. and b. for each add-on control device organic HAP destruction or removal efficiency determination as specified in s. NR 465.48(7).

a. Records of each add-on control device performance test conducted according to s. NR 465.48(5) and (7).

b. Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

7. Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in s. NR 465.48(8) and to document compliance with the operating limits as specified in Table 1 of this subchapter.

8. A record of the work practice plan required by s. NR 465.43(4) and documentation that you are implementing the plan on a continuous basis.

(4) IN WHAT FORM AND FOR HOW LONG MUST I KEEP MY RECORDS? (a) Your records shall be in a form suitable and readily available for expeditious review, according to s. NR 460.09(2)(a). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in s. NR 460.09(2)(a), you shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.

(c) You shall keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report or record according to s. NR 460.09(2)(a). You may keep the records off-site for the remaining 3 years.

NR 465.46 Compliance requirements for the compliant material option. (1) BY WHAT DATE MUST I CONDUCT THE INITIAL COMPLIANCE DEMONSTRATION? You shall complete the initial compliance demonstration for the initial compliance period according to the requirements in sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR 465.41(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to sub. (2) and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in s. NR 465.43(1), and that you used no thinners or other additives, or cleaning materials that contained organic HAP as determined according to sub. (2)(a).

(2) HOW DO I DEMONSTRATE INITIAL COMPLIANCE WITH THE EMISSION LIMITS? You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source or for all the coating operations in the affected source. You shall use either the emission rate without add-on controls option in s. NR 465.43(2)(b) or the emission rate with add-on controls option in s. NR 465.43(2)(c) for any coating operation in the affected source for which you do not use the compliant material option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations may not use any coating with an organic HAP content that exceeds the applicable emission limits in s. NR 465.43(1) and may not use

any thinner or other additive, or cleaning material that contains organic HAP as determined according to pars. (a) to (e). Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in s. NR 465.43(3) and (4), respectively. You shall conduct a separate initial compliance demonstration for each general use, high performance, magnet wire, rubber-to-metal and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in s. NR 465.43(1)(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit, you shall demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You shall meet all the requirements of this subsection. You shall use the procedures in pars. (a) to (e) on each coating, thinner, other additive and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners, other additives and cleaning materials that are reclaimed on-site, or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site, and reused in the coating operation or operations for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You shall determine the mass fraction of organic HAP for each coating, thinner, other additive and cleaning material used during the compliance period by using one of the options in subds. 1. to 5.

1. 'Method 311.' You may use Method 311 in 40 CFR part 63, Appendix A, incorporated by reference in s. NR 484.04(25), for determining the mass fraction of organic HAP. Use the procedures specified in subd. 1.a. and b. when performing a Method 311 test.

a. Count each organic HAP that is measured to be present at 0.1% by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0% by mass or more for other compounds. Express the mass fraction of each organic HAP you count as a value truncated to 4 places after the decimal point.

Note: For example, if toluene, which is not an OSHA carcinogen, is measured to be 0.5% of the material by mass, you do not have to count it.

b. Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to 3 places after the decimal point.

2. 'Method 24.' For coatings, you may use Method 24 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r), rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in 40 CFR part 63, Subpart PPPP, Appendix A, as a substitute for the mass fraction of organic HAP.

3. 'Alternative method.' You may use an alternative test method for determining the mass fraction of organic HAP once the administrator has approved it. You shall follow the procedure in s. NR 460.06(5) to submit an alternative test method for approval.

4. 'Information from the supplier or manufacturer of the material.' You may rely on information other than that generated by the test methods specified in subds. 1. to 3., such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1% by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0% by mass or more for other compounds. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between manufacturer's information and results of a test conducted according to subds. 1. to 3., then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

Note: For example, concerning which HAPs to include, if toluene, which is not an OSHA carcinogen, is 0.5% of the material by mass, you do not have to count it.

5. 'Solvent blends.' Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which shall be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 2 or 3 of this subchapter. If you use the tables, you shall use the values in Table 2 for all solvent blends that match Table 2 entries according to the instructions for Table 2, and you may use Table 3 only if the solvent blends in the materials you use do

not match any of the solvent blends in Table 2 and you know only whether the blend is aliphatic or aromatic. However, if the results of a test using Method 311 in 40 CFR part 63, Appendix A, incorporated by reference in s. NR 484.04(25), indicate higher values than those listed on Table 2 or 3, the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

(b) *Determine the volume fraction of coating solids for each coating.* You shall determine the volume fraction of coating solids, in liters (gallons) of coating solids per liter (gallon) of coating, for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in subds. 1. to 4. If test results obtained according to subd. 1. do not agree with the information obtained under subd. 3. or 4., the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

1. 'ASTM D2697-86 (1998) or ASTM D6093-97 (2003).' You may use ASTM D2697-86 (1998) "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings", incorporated by reference in s. NR 484.10(39e), or ASTM D6093-97 (2003) "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer", incorporated by reference in s. NR 484.10(55m), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

2. 'Alternative method.' You may use an alternative test method for determining the solids content of each coating once the administrator has approved it. You shall follow the procedure in s. NR 460.06(5) to submit an alternative test method for approval.

3. 'Information from the supplier or manufacturer of the material.' You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

4. 'Calculation of volume fraction of coating solids.' You may determine the volume fraction of coating solids using the following equation:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{(Equation 1)}$$

where:

V_s is the volume fraction of coating solids, liters (gallons) of coating solids per liter (gallon) of coating

$m_{volatiles}$ is the total volatile matter content of the coating, including HAP, volatile organic compounds, water and exempt compounds, determined according to Method 24 in 40 CFR part 60, Appendix A, grams (lb) of volatile matter per liter (gallon) of coating

D_{avg} is the average density of volatile matter in the coating, grams (lb) of volatile matter per liter (gallon) of volatile matter, determined from test results using ASTM D1475-98 (2003) "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products", incorporated by reference in s. NR 484.10(22), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 (2003) test results and other information sources, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM D1475-98 (2003) "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products", incorporated by reference in s. NR 484.10(22), information from the supplier or manufacturer of the material, or specific gravity data for pure chemicals. If there is disagreement between ASTM D1475-98 (2003) test results and the supplier's or manufacturer's information, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

(d) *Determine the organic HAP content of each coating.* Calculate the organic HAP content of each coating used during the compliance period using the following equation:

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad \text{(Equation 2)}$$

where:

H_c is the organic HAP content of the coating, kg (lb) of organic HAP emitted per liter (gallon) of coating solids used

D_c is the density of coating, kg (lb) of coating per liter (gallon) of coating, determined according to par. (c)

W_c is the mass fraction of organic HAP in the coating, kg (lb) of organic HAP per kg (lb) of coating, determined according to par. (a)

V_s is the volume fraction of coating solids, liter (gallon) of coating solids per liter (gallon) of coating, determined according to par. (b)

(e) *Compliance demonstration*. The calculated organic HAP content for each coating used during the initial compliance period shall be less than or equal to the applicable emission limit in s. NR 465.43(1); and each thinner, other additive and cleaning material used during the initial compliance period may not contain any organic HAP, determined according to par. (a). You shall keep all records required by s. NR 465.45(3) and (4). As part of the notification of compliance status required in s. NR 465.45(1), you shall identify the coating operations for which you used the compliant material option and submit a statement that the coating operations were in compliance with the emission limits in s. NR 465.43(1) during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in s. NR 465.43(1), and you used no thinners or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in par. (a).

(3) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE WITH THE EMISSION LIMITS? (a) For each compliance period, to demonstrate continuous compliance, you may not use any coating for which the organic HAP content, determined using Equation 2 of sub. (2)(d), exceeds the applicable emission limit in s. NR 465.43(1), and you may not use any thinner or other additive, or cleaning material that contains organic HAP, determined according to sub. (2)(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in sub. (1), is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under s. NR 465.43(1)(c)2., you shall also perform the calculation using Equation 1 of s. NR 465.43(1)(c)2. on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limits in s. NR 465.43(1) by using the compliant material option specified in this section, the use of any coating, thinner or other additive, or cleaning material that does not meet the criteria specified in par. (a) is a deviation from the emission limits in s. NR 465.43(1) that shall be reported as specified in s. NR 465.45(1)(c)6. and (2)(a)5.

(c) As part of each semiannual compliance report required by s. NR 465.45(2), you shall identify the coating operations for which you used the compliant material option. If there were no deviations from the applicable emission limit in s. NR 465.43(1), submit a statement that the coating operations were in compliance with the emission limits during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in s. NR 465.43(1), and you used no thinner, other additive or cleaning material that contained organic HAP, determined according to sub. (2)(a).

(d) You shall maintain records as specified in s. NR 465.45(3) and (4).

NR 465.47 Compliance requirements for the emission rate without add-on controls option. (1) BY WHAT DATE MUST I CONDUCT THE INITIAL COMPLIANCE DEMONSTRATION? You shall complete the initial compliance demonstration for the initial compliance period according to the requirements of sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR 465.41(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You shall determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to sub. (2) and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in s. NR 465.43(1).

(2) HOW DO I DEMONSTRATE INITIAL COMPLIANCE WITH THE EMISSION LIMITS? You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You shall use either the compliant material option in s. NR 465.43(2)(a) or the emission rate with add-on controls option in s. NR 465.43(2)(c) for any coating operation in the affected source for which you do not use the emission rate without add-on controls option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations shall meet the applicable emission limit in s. NR 465.43(1), but is not required to meet the operating limits or work practice standards in s. NR 465.43(3) and (4). You shall conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in s. NR 465.43(1)(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit, you shall demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You shall meet all the requirements of this subsection. When calculating the organic HAP emission rate according to pars. (a) to (h), do not include any coatings, thinners, other additives or cleaning materials used on coating operations for which you use the compliant material option specified in s. NR 465.43(2)(a) or the emission rate with add-on controls option specified in

s. NR 465.43(2)(c) You do not need to redetermine the mass of organic HAP in coatings, thinners or other additives, or cleaning materials that have been reclaimed on-site, or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site, and reused in the coating operation or operations for which you use the emission rate without add-on controls option. If you use coatings, thinners or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed.

(a) *Determine the mass fraction of organic HAP for each material*. Determine the mass fraction of organic HAP for each coating, thinner, other additive and cleaning material used during each month according to the requirements in s. NR 465.46(2)(a).

(b) *Determine the volume fraction of coating solids*. Determine the volume fraction of coating solids, in liters (gallons) of coating solids per liter (gallon) of coating, for each coating used during each month according to the requirements in s. NR 465.46(2)(b).

(c) *Determine the density of each material*. Determine the density of each liquid coating, thinner or other additive, and cleaning material used during each month from test results using ASTM D1475-98 (2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products", incorporated by reference in s. NR 484.10(22), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM D5965-02 "Standard Test Methods for Specific Gravity of Coating Powders", incorporated by reference in s. NR 484.10(55i), or information from the supplier. If there is disagreement between ASTM Method D1475-98 (2003) or ASTM Method D5965-02 test results and other information sources, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C and 2 of this subsection.

(d) *Determine the volume of each material used*. Determine the volume in liters (gallons) of each coating, thinner, other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of

each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B and 1C of this subsection.

(e) *Calculate the mass of organic HAP emissions*. The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners, other additives and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using the following equations and the procedures in subd. 2. if applicable:

$$H_e = A + B + C - R_w \qquad \text{(Equation 1)}$$

where:

H_e is the total mass of organic HAP emissions during the month, kg (lb)

A is the total mass of organic HAP in the coatings used during the month, kg (lb), as calculated in Equation 1A of this subsection

B is the total mass of organic HAP in the thinners and other additives used during the month, kg (lb), as calculated in Equation 1B of this subsection

C is the total mass of organic HAP in the cleaning materials used during the month, kg (lb), as calculated in Equation 1C of this subsection

R_w is the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg (lb), determined according to subd. 4. You may assign a value of zero to R_W if you do not wish to use this allowance.

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Equation 1A)}$$

where:

A is the total mass of organic HAP in the coatings used during the month, kg (lb)

$Vol_{c,i}$ is the total volume of coating i, used during the month, liters (gallons)

$D_{c,i}$ is the density of coating i, kg (lb) of coating per liter (gallon) of coating

$W_{c,i}$ is the mass fraction of organic HAP in coating i, kg (lb) of organic HAP per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

m is the number of different coatings used during the month

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Equation 1B)}$$

where:

B is the total mass of organic HAP in the thinners and other additives used during the month, kg (lb)

$Vol_{t,j}$ is the total volume of thinner or other additive j, used during the month, liters (gallons)

$D_{t,j}$ is the density of thinner or other additive j, kg per liter (lb per gallon)

$W_{t,j}$ is the mass fraction of organic HAP in thinner or other additive j, kg (lb) of organic HAP per kg (lb) of thinner or other additive. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

n is the number of different thinners and other additives used during the month

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Equation 1C)}$$

where:

C is the total mass of organic HAP in the cleaning materials used during the month, kg (lb)

$Vol_{s,k}$ is the total volume of cleaning material k, used during the month, liters (gallons)

$D_{s,k}$ is the density of cleaning material k, kg per liter (lb per gallon)

$W_{s,k}$ is the mass fraction of organic HAP in cleaning material k, kg (lb) of organic HAP per kg (lb) of material

p is the number of different cleaning materials used during the month

2. If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this subsection, then you shall determine the mass according to subd. 2.a. to d.

a. Include only waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this subsection and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265 or 266. The TSDF may be either off-site or on-site. Do not include organic HAP contained in wastewater.

b. Determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

c. Determine the total mass of organic HAP contained in the waste materials specified in subd. 4.b.

d. You shall document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in s. NR 465.45(3)(h). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used*. Determine the total volume of coating solids used, liters (gallons), which is the combined volume of coating solids for all the coatings used during each month, using the following equation:

$$V_{st} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i}) \qquad \text{(Equation 2)}$$

where:

V_{st} is the total volume of coating solids used during the month, liters (gallons)

$Vol_{c,i}$ is the total volume of coating i, used during the month, liters (gallons)

$V_{s,i}$ is the volume fraction of coating solids for coating i, liters (gallons) of solids per liter (gallon) of coating, determined according to s. NR 465.46(2)(b)

m is the number of coatings used during the month

(g) *Calculate the organic HAP emission rate*. Calculate the organic HAP emission rate for the compliance period using Equation 3:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} V_{st}} \qquad \text{(Equation 3)}$$

where:

H_{yr} is the average organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per liter (gallon) of coating solids used

H_e is the total mass of organic HAP emissions from all materials used during month y, kg (lb), as calculated by Equation 1 of this subsection

V_{st} is the total volume of coating solids used during month y, liters (gallons), as calculated by Equation 2 of this subsection

y is the number of the month in the compliance period

n is the number of full or partial months in the compliance period. For the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13. For all following compliance periods, n equals 12.

(h) *Compliance demonstration*. The organic HAP emission rate for the initial compliance period, calculated using Equation 3 of this subsection, shall be less than or equal to the applicable emission limit for each sub-category in s. NR 465.43(1) or the predominant activity or facility-specific emission limit allowed in s. NR 465.43(1)(c). You shall keep all records as required by s. NR 465.45(3) and (4). As part of the notification of compliance status required by s. NR 465.45(1), you shall identify the coating operations for which you used the emission rate without add-on controls option and submit a statement that the coating operations were in compliance with the emission limits in s. NR 465.43(1) during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in s. NR 465.43(1), determined according to the procedures in this subsection.

(3) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE WITH THE EMISSION LIMITS? (a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to sub. (2)(a) to (g), shall be less than or equal to the applicable emission limit in s. NR 465.43(1). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in sub. (1) is the end of a compliance period consisting of that month and the preceding 11 months. You shall perform the calculations in sub.

(2)(a) to (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under s. NR 465.43(1)(c), you shall also perform the calculation using Equation 1 of s. NR 465.43(1)(c)2. on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeds the applicable emission limit in s. NR 465.43(1), this is a deviation from the emission limit for that compliance period and shall be reported as specified in s. NR 465.45(1)(c)6. and (2)(a)6.

(c) As part of each semiannual compliance report required by s. NR 465.45(2), you shall identify the coating operations for which you used the emission rate without add-on controls option. If there were no deviations from the emission limits in s. NR 465.43(1), you shall submit a statement that the coating operations were in compliance with the emission limits during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in s. NR 465.43(1), determined according to sub. (2)(a) to (g).

(d) You shall maintain records as specified in s. NR 465.45(3) and (4).

NR 465.48 Compliance requirements for the emission rate with add-on controls option. (1) BY WHAT DATE MUST I CONDUCT PERFORMANCE TESTS AND OTHER INITIAL COMPLIANCE DEMONSTRATIONS? (a) For a new or reconstructed affected source, you shall meet the requirements of subds. 1. to 4.

1. All emission capture systems, add-on control devices and CPMS shall be installed and operating no later than the applicable compliance date specified in s. NR 465.41(4). Except for solvent recovery systems for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall conduct a performance test of each capture system and add-on control device according to subs. (5), (6) and (7) and establish the operating limits required by s. NR 465.43(3) no later than 180 days after the applicable compliance date specified in s. NR 465.41(4). For a solvent recovery system for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall initiate the first material balance no later than the applicable compliance date specified in s. NR 465.41(4). For magnet wire coating operations you may, with approval, conduct a performance test of one representative magnet wire coating machine for each group of identical or very similar magnet wire coating machines.

2. You shall develop and begin implementing the work practice plan required by s. NR 465.43(4) no later than the compliance date specified in s. NR 465.41(4).

3. You shall complete the initial compliance demonstration for the initial compliance period according to the requirements of sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR 465.41(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You shall determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to subs. (5), (6) and (7); results of liquid-liquid material balances conducted according to sub. (2)(j); calculations according to sub. (2) and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in s. NR 465.43(1); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by sub. (9); and documentation of whether you developed and implemented the work practice plan required by s. NR 465.43(4).

4. You do not need to comply with the operating limits for the emission capture system and add-on control device required by s. NR 465.43(3) until after you have completed the performance tests specified in subd. 1. Instead, you shall maintain a log detailing the operation and maintenance of the emission capture system, add-on control device and continuous parameter monitors during the period between the compliance date and the performance test. You shall begin complying with the operating limits for your affected source on the date you complete the performance tests specified in subd. 1. For magnet wire coating operations, you shall begin complying with the operating limits for all identical or very similar magnet wire coating machines on the date you complete the performance test of a representative magnet wire coating machine. The requirements in this subdivision do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in sub. (2)(j).

(b) For an existing affected source, you shall meet the requirements of subds. 1. to 3.

1. All emission capture systems, add-on control devices and CPMS shall be installed and operating no later than the applicable compliance date specified in s. NR 465.41(4). Except for magnet wire coating operations and solvent recovery systems for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall conduct a performance test of each capture system and add-on control device according to the procedures in subs. (5), (6) and (7) and establish the operating limits required by s. NR 465.43(3) no later than the compliance date specified in

s. NR 465.41(4). For magnet wire coating operations, you may, with approval, conduct a performance test of a single magnet wire coating machine that represents identical or very similar magnet wire coating machines. For a solvent recovery system for which you conduct liquid-liquid material balances according to sub. (2)(j), you shall initiate the first material balance no later than the compliance date specified in s. NR 465.41(4).

2. You shall develop and begin implementing the work practice plan required by s. NR 465.43(4) no later than the compliance date specified in s. NR 465.41(4).

3. You shall complete the initial compliance demonstration for the initial compliance period according to the requirements of sub. (2). The initial compliance period begins on the applicable compliance date specified in s. NR 465.41(4) and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You shall determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to subs. (5), (6) and (7); results of liquid-liquid material balances conducted according to sub. (2)(j); calculations according to sub. (2); and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in s. NR 465.43(1); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by sub. (9); and documentation of whether you developed and implemented the work practice plan required by s. NR 465.43(4).

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system or control device. Any previous tests shall meet the conditions described in subds. 1. to 3.

1. The previous test shall have been conducted using the methods and conditions specified in this subchapter.

2. Either no process or equipment changes have been made since the previous test was performed, or the owner or operator shall be able to demonstrate that the results of the performance test reliably demonstrate compliance despite process or equipment changes.

3. Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

(2) HOW DO I DEMONSTRATE INITIAL COMPLIANCE? (a) *General*. You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You shall use either the compliant material option in s. NR 465.43(2)(a) or the emission rate without add-on controls option in s. NR 465.43(2)(b) for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operations for which you use the emission rate with add-on controls option shall meet the applicable emission limits in s. NR 465.43(1), (3) and (4). You shall conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal and extreme performance fluoropolymer coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in s. NR 465.43(1)(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit, you shall demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You shall meet all the requirements of this subsection. When calculating the organic HAP emission rate according to pars. (b) to (n), do not include any coatings, thinners, other additives or cleaning materials used on coating operations for which you use the compliant material option in s. NR 465.43(2)(a) or the emission rate without add-on controls option in s. NR 465.43(2)(b). You do not need to re-determine the mass of organic HAP in coatings, thinners, other additives or cleaning materials that have been reclaimed onsite, or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site, and reused in the coatings operations for which you use the emission rate with add-on controls option. If you use coatings, thinners, other additives or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits*. Except as provided in sub. (1)(a)4., and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of par. (j), you shall establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by s. NR 465.43(3), using the procedures specified in subs. (8) and (9).

(c) *Compliance with work practice requirements*. You shall develop, implement and document your implementation of the work practice plan required by s. NR 465.43(4) during the initial compliance period, as specified in s. NR 465.45(3).

(d) *Compliance with emission limits*. You shall follow the procedures in pars. (e) to (n) to demonstrate compliance with the applicable emission limit in s. NR 465.43(1) for each affected source in each sub-category.

(e) *Determine the mass fraction of organic HAP, density, volume used and volume fraction of coating solids*. Follow the procedures in s. NR 465.47(2)(a) to (d) to determine the mass fraction of organic HAP, density and volume of each coating, thinner, other additive and cleaning material used during each month; and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls*. Using Equation 1 of s. NR 465.47(2), calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners, other additives and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation*. Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in par. (h) to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in par. (j) to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance*. Use the equations in this paragraph to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. You shall assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in sub. (4)(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown or malfunction, unless you

have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the department.

Note: The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, other additives and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. Equation 1 treats the materials used during a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_C = (A_C + B_C + C_C - R_W - H_{UNC})(\frac{CE}{100} x \frac{DRE}{100}) \qquad \text{(Equation 1)}$$

where:

H_C is the mass of organic HAP emission reduction for the controlled coating operation during the month, kg (lb)

A_C is the total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg (lb), as calculated in Equation 1A of this subsection

B_C is the total mass of organic HAP in the thinners and other additives used in the controlled coating operation during the month, kg (lb), as calculated in Equation 1B of this subsection

C_C is the total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), as calculated in Equation 1C of this subsection

R_W is the total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg (lb), determined according to s. NR 465.47(2)(e)4. You may assign a value of zero to R_W if you do not wish to use this allowance.

H_{UNC} is the total mass of organic HAP in the coatings, thinners and other additives, and cleaning materials used during all deviations specified in sub. (4)(c) and (d) that occurred during the month in the controlled coating operation, kg (lb), as calculated in Equation 1D of this subsection

CE is the capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in subs. (5) and (6) to measure and record capture efficiency.

DRE is the organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in subs. (5) and (7) to measure and record the organic HAP destruction or removal efficiency.

$$A_C = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Equation 1A)}$$

where:

A_C is the total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg (lb)

$Vol_{c,i}$ is the total volume of coating i used during the month, liters (gallons)

$D_{c,i}$ is the density of coating i, kg per liter (lb per gallon)

$W_{c,i}$ is the mass fraction of organic HAP in coating i, kg per kg (lb per lb). For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in to 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

m is the number of different coatings used

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Equation 1B)}$$

where:

B_C is the total mass of organic HAP in the thinners and other additives used in the controlled coating operation during the month, kg (lb)

$Vol_{t,j}$ is the total volume of thinner or other additive j used during the month, liters (gallons)

$D_{t,j}$ is the density of thinner or other additive j, kg per liter (lb per gallon)

$W_{t,j}$ is the mass fraction of organic HAP in thinner or other additive, j, kg per kg (lb per lb). For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

n is the number of different thinners and other additives used

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Equation 1C)}$$

where:

C_C is the total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb)

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters (gallons)

$D_{s,k}$ is the density of cleaning material, k, kg per liter (lb per gallon)

$W_{s,k}$ is the mass fraction of organic HAP in cleaning material, k, kg per kg (lb per lb)

p is the number of different cleaning materials used

$$H_{UNC} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h) \qquad \text{(Equation 1D)}$$

where:

H_{UNC} is the total mass of organic HAP in the coatings, thinners and other additives, and cleaning materials used during all deviations specified in sub. (4)(c) and (d) that occurred during the month in the controlled coating operation, kg (lb)

Vol_h is the total volume of coating, thinner or other additive, or cleaning material, h, used in the controlled coating operation during deviations, liters (gallons)

D_h is the density of coating, thinner or other additive, or cleaning material, h, kg per liter (lb per gallon)

W_h is the mass fraction of organic HAP in coating, thinner, other additive or cleaning material, h, kg (lb) of organic HAP per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

q is the number of different coatings, thinners and other additives, and cleaning materials used

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and other additives, and cleaning materials that are used in the coating operation or operations controlled by the solvent recovery system

during each month. Perform a liquid-liquid material balance for each month as specified in subds. 1 to 6. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in subd. 7.

1. For each solvent recovery system, install, calibrate, maintain and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device shall be initially certified by the manufacturer to be accurate to within plus or minus 2.0% of the mass of volatile organic matter recovered.

2. For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, based on measurement with the device required in subd. 1.

3. Determine the mass fraction of volatile organic matter for each coating, thinner, other additive and cleaning material used in the coating operation or operations controlled by the solvent recovery system during the month, kg (lb) of volatile organic matter per kg (lb) of coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 or an approved alternative method, the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the department that the formulation data are correct.

4. Determine the density of each coating, thinner, other additive and cleaning material used in the coating operation or operations controlled by the solvent recovery system during the month, kg per liter (lb per gallon), according to s. NR 465.47(2)(c).

5. Measure the volume of each coating, thinner, other additive and cleaning material used in the coating operation or operations controlled by the solvent recovery system during the month, liters (gallons).

6. Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using the following equation:

$$R_V = \frac{100 M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \qquad \text{(Equation 2)}$$

where:

R_V is the volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent

M_{VR} is the mass of volatile organic matter recovered by the solvent recovery system during the month, kg (lb)

Vol_i is the volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters (gallons)

D_i is the density of coating, i, kg per liter (lb per gallon)

$WV_{c,i}$ is the mass fraction of volatile organic matter for coating i, kg (lb) of volatile organic matter per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

Vol_j is the volume of thinner or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters (gallons)

D_j is the density of thinner or other additive, j, kg per liter (lb per gallon)

$WV_{t,j}$ is the mass fraction of volatile organic matter for thinner or other additive, j, kg (lb) of volatile organic matter per kg (lb) of thinner or other additive. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

Vol_k is the volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters (gallons)

D_k is the density of cleaning material, k, kg per liter (lb per gallon)

$WV_{s,k}$ is the mass fraction of volatile organic matter for cleaning material, k, kg (lb) of volatile organic matter per kg (lb) of cleaning material

m is the number of different coatings used in the coating operation controlled by the solvent recovery system during the month

n is the number of different thinners and other additives used in the coating operation controlled by the solvent recovery system during the month

p is the number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month

7. Calculate the mass of organic HAP emission reduction for the coating operations controlled by the solvent recovery system during the month, using the following equations:

$$H_{CSR} = (A_{CSR} + B_{CSR} + C_{CSR})(\frac{R_V}{100}) \qquad \text{(Equation 3)}$$

where:

H_{CSR} is the mass of organic HAP emission reduction for the coating operation or operations controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg (lb)

A_{CSR} is the total mass of organic HAP in the coatings used in the coating operation or operations controlled by the solvent recovery system, kg (lb), calculated using Equation 3A of this subsection

B_{CSR} is the total mass of organic HAP in the thinners and other additives used in the coating operation or operations controlled by the solvent recovery system, kg (lb), calculated using Equation 3B of this subsection

C_{CSR} is the total mass of organic HAP in the cleaning materials used in the coating operation or operations controlled by the solvent recovery system, kg (lb), calculated using Equation 3C of this subsection

R_V is the volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this subsection

$$A_{CSR} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Equation 3A)}$$

where:

A_{CSR} is the total mass of organic HAP in the coatings used in the coating operation or operations controlled by the solvent recovery system during the month, kg (lb)

$Vol_{c,i}$ is the total volume of coating, i, used during the month in the coating operation or operations controlled by the solvent recovery system, liters (gallons)

$D_{c,i}$ is the density of coating, i, kg per liter (lb per gallon)

$W_{c,i}$ is the mass fraction of organic HAP in coating, i, kg (lb) of organic HAP per kg (lb) of coating. For reactive adhesives, use the mass fraction of organic HAP emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A, incorporated by reference in s. NR 484.04(24r).

m is the number of different coatings used

$$B_{CSR} = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Equation 3B)}$$

where:

B_{CSR} is the total mass of organic HAP in the thinners and other additives used in the coating operation or operations controlled by the solvent recovery system during the month, kg (lb)

$Vol_{t,j}$ is the total volume of thinner or other additive, j, used during the month in the coating operation or operations controlled by the solvent recovery system, liters (gallons)

$D_{t,j}$ is the density of thinner or other additive, j, kg per liter (lb per gallon)

$W_{t,j}$ is the mass fraction of organic HAP in thinner or other additive, j, kg (lb) of organic HAP per kg (lb) of thinner or other additive. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in 40 CFR part 63, Subpart PPPP, Appendix A incorporated by reference in s. NR 484.04(24r).

n is the number of different thinners and other additives used

$$C_{CSR} = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Equation 3C)}$$

where:

C_{CSR} is the total mass of organic HAP in the cleaning materials used in the coating operation or operations controlled by the solvent recovery system during the month, kg (lb)

$Vol_{s,k}$ is the total volume of cleaning material, k, used during the month in the coating operation or operations controlled by the solvent recovery system, liters (gallons)

$D_{s,k}$ is the density of cleaning material, k, kg per liter (lb per gallon)

$W_{s,k}$ is the mass fraction of organic HAP in cleaning material, k, kg (lb) of organic HAP per kg (lb) of cleaning material

p is the number of different cleaning materials used

(k) *Calculate the total volume of coating solids used*. Determine the total volume of coating solids used, liters (gallons), which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of s. NR 465.47(2).

(L) *Calculate the mass of organic HAP emissions for each month*. Determine the mass of organic HAP emissions during each month, using Equation 4:

$$H_{HAP} = H_e - \sum_{i=1}^{q}(H_{c,i}) - \sum_{j-1}^{r}(H_{CSR,j}) \qquad \text{(Equation 4)}$$

where:

H_{HAP} is the total mass of organic HAP emissions for the month, kg (lb)

H_e is the total mass of organic HAP emissions before add-on controls from all the coatings, thinners, other additives and cleaning materials used during the month, kg (lb), determined according to par. (f)

$H_{c,i}$ is the total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg (lb), from Equation 1 of this subsection

$H_{CSR,j}$ is the total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg (lb), from Equation 3 of this subsection

q is the number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance

r is the number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance

(m) *Calculate the organic HAP emission rate for the compliance period*. Determine the organic HAP emission rate for the compliance period using Equation 5:

$$H_{annual} = \frac{\sum_{y=1}^{n} H_{HAP,y}}{\sum_{y=1}^{n} V_{st,y}} \qquad \text{(Equation 5)}$$

where:

H_{annual} is the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per liter (gallon) of coating solids used

$H_{HAP,y}$ is the organic HAP emissions for month, y, kg (lb), determined according to Equation 4 of this subsection

$V_{st,y}$ is the total volume of coating solids used during month, y, liters (gallons), from Equation 2 of s. NR 465.47(2)

y is the number of the month in the compliance period

n is the number of full or partial months in the compliance period. For the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13. For all following compliance periods, n equals 12.

(n) *Compliance demonstration*. The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this subsection, shall be less than or equal to the applicable emission limit for each sub-category in s. NR 465.43(1) or the predominant activity or facility-specific emission limit allowed in s. NR 465.43(1)(c). You shall keep all records as required by s. NR 465.45(3) and (4). As part of the notification of compliance status required by s. NR 465.45(1), you shall identify the coating operations for which you used the emission rate with add-on controls option as specified in this section and submit a statement that the coating operations were in compliance with the emission limits in s. NR 465.43(1) during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in s. NR 465.43(1), and you achieved the operating limits required by s. NR 465.43(3) and the work practice standards required by s. NR 465.43(4).

(4) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE WITH THE EMISSION LIMITS? (a) To demonstrate continuous compliance with the applicable emission limit in s. NR 465.43(1), the organic HAP emission rate for each compliance period, determined according to the procedures in sub. (2), shall be equal to or less than the applicable emission limit in s. NR 465.43(1). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in sub. (1) is the end of a compliance period consisting of that month and the preceding 11 months. You shall perform the calculations in sub. (2) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under s. NR 465.43(1)(c)2., you shall also perform the calculation using Equation 1 of s. NR 465.43(1)(c)2. on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in s. NR 465.43(1), this is a deviation from the emission limit for that compliance period that shall be reported as specified in s. NR 465.45(1)(c)6. and (2)(a)7.

(c) You shall demonstrate continuous compliance with each operating limit required by s. NR 465.43(3) that applies to you, as specified in Table 1 of this subchapter, when the coating line is in operation. If an operating parameter is out of the allowed range specified in Table 1, you shall do both of the following:

1. Report as a deviation from the operating limit as specified in s. NR 465.45(1)(c)6. and (2)(a)7.

2. Assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the department.

(d) You shall meet the requirements for bypass lines in sub. (9)(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that shall be reported as specified in s. NR 465.45(1)(c)6. and (2)(a)7. For the purposes of completing the compliance calculations specified in sub. (2)(h), you shall treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of sub. (2).

(e) You shall demonstrate continuous compliance with the work practice standards in s. NR 465.43(4). If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by s. NR 465.45(3)(k)8., this is a deviation from the work practice standards that shall be reported as specified in s. NR 465.45(1)(c)6. and (2)(a)7.

(f) As part of each semiannual compliance report required in s. NR 465.45(2), you shall identify the coating operations for which you used the emission rate with add-on controls option. If there were no deviations from the emission limits in s. NR 465.43(1), you shall submit a statement that you were in compliance with the emission limits during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in s. NR 465.43(1), and you achieved the operating limits required by s. NR 465.43(3) and the work practice standards required by s. NR 465.43(4) during each compliance period.

(g) During periods of startup, shutdown or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you shall operate in accordance with the startup, shutdown and malfunction plan required by s. NR 465.44(1)(c).

(j) You shall maintain records as specified in s. NR 465.45(3) and (4).

(5) WHAT ARE THE GENERAL REQUIREMENTS FOR PERFORMANCE TESTS? (a) You shall conduct each performance test required by sub. (1) according to the requirements in s. NR 460.06(4)(a) and under the conditions in this paragraph, unless you obtain a waiver of the performance test according to the provisions in s. NR 460.06(7).

1. 'Representative coating operation operating conditions.' You shall conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown or malfunction and during periods of non-operation do not constitute representative conditions. You shall record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

2. 'Representative emission capture system and add-on control device operating conditions.' You shall conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You shall record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You shall conduct each performance test of an emission capture system according to the requirements in sub. (6). You shall conduct each performance test of an add-on control device according to the requirements in sub. (7).

(6) HOW DO I DETERMINE THE EMISSION CAPTURE SYSTEM EFFICIENCY? You shall use the procedures and test methods in this subsection to determine capture efficiency as part of the performance test required by sub. (1).

(a) *Assuming 100% capture efficiency*. You may assume the capture system efficiency is 100% if both of the conditions in subds. 1. and 2. are met.

1. The capture system meets the criteria in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

2. All coatings, thinners, other additives and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system.

Note: This criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency*. If the capture system does not meet both of the conditions in par. (a)1. and 2., then you shall use one of the 3 protocols described in pars. (c), (d) and (e) to measure capture efficiency. The capture efficiency measurements use total volatile hydrocarbon (TVH) capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in pars. (c) and (d), the capture efficiency measurement shall consist of 3 test runs. Each test run shall be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of the production, which includes surface preparation activities and drying and curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure*. The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. You shall use a temporary total enclosure or a building enclosure and the procedures in subds. 1. to 6. to measure emission capture system efficiency when using the liquid-to-uncaptured-gas protocol.

1. Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, other additives and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, shall also be inside the enclosure. The enclosure shall meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).

2. Use Method 204A or 204F in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to determine the mass fraction of TVH liquid input from each coating, thinner, other additive and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

3. Use Equation 1 of this subsection to calculate the total mass of TVH liquid input from all the coatings, thinners, other additives and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad \text{(Equation 1)}$$

where:

TVH_{used} is the mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg (lb)

TVH_i is the mass fraction of TVH in coating, thinner or other additive, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg (lb) of TVH per kg (lb) of material

Vol_i is the total volume of coating, thinner or other additive, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters (gallons)

D_i is the density of coating, thinner or other additive, or cleaning material, i, kg (lb) of material per liter (gallon) of material

n is the number of different coatings, thinners and other additives, and cleaning materials used in the coating operation during the capture efficiency test run

4. Use Method 204D or 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to measure the total mass of TVH emissions that are not captured by the emission capture system. They are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

a. Use Method 204D in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a temporary total enclosure.

b. Use Method 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, shall be shut down, but all fans and blowers shall be operating normally.

5. For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} x100 \qquad \text{(Equation 2)}$$

where:

CE is the capture efficiency of the emission capture system vented to the add-on control device, percent

TVH_{used} is the total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg (lb)

$TVH_{uncaptured}$ is the total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg (lb)

6. Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the 3 test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure*. The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. You shall use a temporary total enclosure or a building enclosure and the procedures in subds. 1. to 5. to measure emission capture system efficiency when using the gas-to-gas protocol.

1. Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, shall also be inside the enclosure. The enclosure shall meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).

2. Use Method 204B or 204C in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to measure the total mass of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

a. The sampling points for the Method 204B or 204C measurement shall be upstream from the add-on control device and shall represent total emissions routed from the capture system and entering the add-on control device.

b. If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device shall be simultaneously measured in each duct and the total emissions entering the add-on control device shall be determined.

3. Use Method 204D or 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), to measure the total mass of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

a. Use Method 204D in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a temporary total enclosure.

b. Use Method 204E in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9), if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, shall be shut down, but all fans and blowers shall be operating normally.

4. For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3:

$$CE = \frac{TVH_{captured}}{(TVH_{captured} + TVH_{uncaptured})} x100 \qquad \text{(Equation 3)}$$

where:

CE is the capture efficiency of the emission capture system vented to the add-on control device, percent

$TVH_{captured}$ is the total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg (lb)

$TVH_{uncaptured}$ is the total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg (lb)

5. Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the 3 test runs.

(e) *Alternative capture efficiency protocol*. As an alternative to the procedures specified in pars. (c) and (d) and subject to the approval of the department, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in 40 CFR part 63, Subpart KK, Appendix A, incorporated by reference in s. NR 484.04(24).

(7) HOW DO I DETERMINE THE ADD-ON CONTROL DEVICE EMISSION DESTRUCTION OR REMOVAL EFFICIENCY? You shall use the procedures and test methods in this subsection to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by sub. (1). You shall conduct 3 test runs as specified in s. NR 460.06(4)(c) and each test run shall last at least one hour. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 in 40 CFR part 63, Subpart MMMM, Appendix A, incorporated by reference in s. NR 484.04(24g), as an alternative.

(a) For all types of add-on control devices, use the test methods specified in subds. 1. to 5.

1. Method 1 or 1A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), as appropriate, to select sampling sites and velocity traverse points.

2. Method 2, 2A, 2C, 2D, 2F or 2G in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), as appropriate, to measure gas volumetric flow rate.

3. Method 3, 3A or 3B in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), as appropriate, for gas analysis to determine dry molecular weight.

4. Method 4 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13) to determine stack gas moisture.

5. Methods for determining gas volumetric flow rate, dry molecular weight and stack gas moisture shall be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13).

1. Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

2. Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

3. Use Method 25A if the add-on control device is not an oxidizer.

(c) If 2 or more add-on control devices are used for the same emission stream, then you shall measure emissions at the outlet to the atmosphere of each device.

Note: For example, if one add-on control device is a concentrator with an outlet to the atmosphere for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet to the atmosphere for the low-volume concentrated stream that is treated with the oxidizer, you shall measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this subsection. If there is more than one inlet or outlet to the add-on control device, you shall calculate the total gaseous organic mass flow rate using Equation 1 for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \qquad \text{(Equation 1)}$$

where:

M_f is the total gaseous organic emissions mass flow rate, kg per hour (h)

C_c is the concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), parts per million by volume (ppmv), dry basis

Q_{sd} is the volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F or 2G in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04(13), dry standard cubic meters/hour (dscm/h)

0.0416 is the conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (at 293 Kelvin (K) and 760 millimeters of mercury (mmHg))

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} x100 \qquad \text{(Equation 2)}$$

where:

DRE is the organic emissions destruction or removal efficiency of the add-on control device, percent

M_{fi} is the total gaseous organic emissions mass flow rate at the inlet to the add-on control device, using Equation 1of this subsection, kg /h

M_{fo} is the total gaseous organic emissions mass flow rate at the outlet of the add-on control device, using Equation 1 of this subsection, kg/h

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the 3 test runs and calculated in Equation 2 of this subsection.

(8) HOW DO I ESTABLISH THE EMISSION CAPTURE SYSTEM AND ADD-ON CONTROL DEVICE OPERATING LIMITS CURING THE PERFORMANCE TEST? During the performance test required by sub. (1) and described in subs. (5), (6) and (7), you shall establish the operating limits required by s. NR 465.43(3) according to this subsection, unless you have received approval for alternative monitoring and operating limits under 40 CFR 63.8(f) as specified in s. NR 465.43(3).

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to subds. 1. and 2.

1. During the performance test, you shall monitor and record the combustion temperature at least once every 15 minutes during each of the 3 test runs. You shall monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

2. Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature shall be the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either subds. 1. and 2. or subds. 3. and 4. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 in 40 CFR part 63, Subpart MMMM, Appendix A, incorporated by reference in s. NR 484.04(24g), as an alternative.

1. During the performance test, you shall monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the 3 test runs.

2. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The average temperature just before the catalyst bed and the average temperature difference across the catalyst bed shall be the minimum operating limits for your catalytic oxidizer.

3. You shall monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in subd. 4. During the performance test, you shall monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the 3 test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This average temperature shall be the minimum operating limit for your catalytic oxidizer.

4. You shall develop and implement an inspection and maintenance plan for your catalytic oxidizers for which you elect to monitor according to subd. 3. The plan shall address, at a minimum, the elements specified in subd. 4.a. to c.

a. Annual sampling and analysis of the catalyst activity, or conversion efficiency, following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you shall replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

b. Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjustment of the equipment to assure proper air-to-fuel mixtures.

c. Annual internal inspection of the catalyst bed to check for channeling, abrasion and settling. If problems are found during the annual internal inspection of the catalyst, you shall replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst, then you shall conduct a new performance test to determine destruction efficiency according to sub. (7). If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) *Regenerative carbon adsorbers*. If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to subds. 1. and 2.

1. You shall monitor and record the total regeneration desorbing gas mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

2. The operating limits for your regenerative carbon adsorber shall be the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers*. If your add-on control device is a condenser, establish the operating limits according to subds. 1. and 2.

1. During the performance test, you shall monitor and record the condenser outlet, or product side, gas temperature at least once every 15 minutes during each of the 3 test runs.

2. Use the data collected during the performance test to calculate and record the average condenser outlet, or product side, gas temperature maintained during the performance test. This average condenser outlet gas temperature shall be the maximum operating limit for your condenser.

(e) *Concentrators*. If your add-on control device includes a concentrator, you shall establish operating limits for the concentrator according to subds. 1. to 4.

1. During the performance test, you shall monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the 3 runs of the performance test.

2. Use the data collected during the performance test to calculate and record the average temperature. This average temperature shall be the minimum operating limit for the desorption concentrate gas stream temperature.

3. During the performance test, you shall monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the 3 runs of the performance test.

4. Use the data collected during the performance test to calculate and record the average pressure drop. This average pressure drop shall be the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems*. For each capture device that is not part of a PTE that meets the criteria of sub. (6)(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in subds. 1. and 2. The operating limit for a PTE is specified in Table 1 of this subchapter. If the source is a magnet wire coating

machine, you may use the procedures in section 2.0 of 40 CFR part 63, Subpart MMMM, Appendix A, incorporated by reference in s. NR 484.04(24g), as an alternative.

1. During the capture efficiency determination required by sub. (1) and described in subs. (5) and (6), you shall monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the 3 test runs at a point in the duct between the capture device and the add-on control device inlet.

2. Calculate and record the average gas volumetric flow rate or duct static pressure for the 3 test runs for each capture device. This average gas volumetric flow rate or duct static pressure shall be the minimum operating limit for that specific capture device.

(9) WHAT ARE THE REQUIREMENTS FOR CONTINUOUS PARAMETER MONITORING SYSTEM INSTALLATION, OPERATION AND MAINTENANCE? (a) *General*. You shall install, operate and maintain each CPMS specified in pars. (c), (e), (f) and (g) according to subds. 1. to 6. You shall install, operate and maintain each CPMS specified in pars. (b) and (d) according to subds. 3. to 5.

1. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period. You shall have a minimum of 4 equally spaced successive cycles of CPMS operation in one hour.

2. You shall determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

3. You shall record the results of each inspection, calibration and validation check of the CPMS.

4. You shall maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

5. You shall operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs and required quality assurance or control activities, including, if applicable, calibration checks and required zero and span adjustments.

6. You may not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You shall use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

7. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line*. You shall meet the requirements of subds. 1. and 2. for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

1. You shall monitor or secure the valve or closure mechanism controlling the bypass line in a non-diverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism shall meet one of the requirements specified in subd. 1.a. to e.

a. Install, calibrate, maintain and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position shall be recorded, as well as every time the flow direction is changed. The flow control position indicator shall be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

b. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You shall visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

c. Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You shall inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

d. Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You shall inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

e. Install, calibrate, maintain and operate according to the manufacturer's specifications a flow direction indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction shall be recorded. The flow direction indicator shall be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

2. If any bypass line is opened, you shall include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in s. NR 465.45(2).

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device, including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams, you shall comply with the requirements in subds. 1. to 3.

1. For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

2. For a catalytic oxidizer, install gas temperature monitors upstream or downstream or both of the catalyst bed as required in sub. (8)(b).

3. For all thermal oxidizers and catalytic oxidizers, you shall meet the requirements in par. (a) and subd. 3.a. to e. for each gas temperature monitoring device.

a. Locate the temperature sensor in a position that provides a representative temperature.

b. Use a temperature sensor with a measurement sensitivity of 5°F or 1.0% of the temperature value, whichever is larger.

c. Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

d. Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

e. Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(d) *Regenerative carbon adsorbers*. If you are using a regenerative carbon adsorber as an add-on control device, you shall monitor the total regeneration desorbing gas mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with subds. 3. to 5. in par. (a) and subds. 1. to 3.

1. The regeneration desorbing gas mass flow monitor shall be an integrating device having a measurement sensitivity of plus or minus 10% capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

2. The carbon bed temperature monitor shall be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

3. For all regenerative carbon adsorbers, you shall meet the requirements in par. (c)3.a. to e. for each temperature monitoring device.

(e) *Condensers*. If you are using a condenser, you shall monitor the condenser outlet, or product side, gas temperature and comply with par. (a) and subds. 1. and 2.

1. The temperature monitor shall provide a gas temperature record at least once every 15 minutes.

2. For all condensers, you shall meet the requirements in par. (c)3.a. to e. for each temperature monitoring device.

(f) *Concentrators*. If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you shall comply with the requirements in subds. 1. and 2.

1. You shall install a temperature monitor in the desorption gas stream. The temperature monitor shall meet the requirements in pars. (a) and (c)3.

2. You shall install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device shall meet the requirements in pars. (a) and (g)2.

(g) *Emission capture systems*. The capture system monitoring system shall comply with the applicable requirements in subds. 1. and 2. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of 40 CFR part 63, Subpart MMMM, Appendix A, incorporated by reference in s. NR 484.04(24g), as an alternative.

1. For each flow measurement device, you shall meet the requirements in par. (a) and the requirements in subd. 1.a. to g.

a. Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

b. Use a flow sensor with an accuracy of at least 10% of the flow.

c. Perform an initial sensor calibration in accordance with the manufacturer's requirements.

d. Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

e. Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

f. Perform leak checks monthly.

g. Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

2. For each pressure drop measurement device, you shall comply with the requirements in par. (a) and the requirements in subd. 2.a. to g.

a. Locate the pressure sensor in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

b. Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5% of the measured value, whichever is larger.

c. Perform an initial calibration of the sensor according to the manufacturer's requirements.

d. Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

e. Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

f. Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection shall yield a stable sensor result for at least 15 seconds.

g. Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

Table 1

Operating Limits if Using the Emission Rate With Add-On Controls Option in s. NR 465.43(2)(c)

If you are required to comply with operating limits by s. NR 465.43(3)(c), you shall comply with the applicable operating limits in the following table.

For the following device:	You shall meet the following operating limit:	And you shall demonstrate continuous compliance with the operating limit by:
(1) Thermal oxidizer	(a) The average combustion temperature in any 3-hour period may not fall below the combustion temperature limit established according to s. NR 465.48(8)(a).	1. Collecting the combustion temperature data according to s. NR 465.48(9)(c); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
(2) Catalytic oxidizer	(a) The average temperature measured just before the catalyst bed in any 3-hour period may not fall below the limit established according to s. NR 465.48(8)(b); and either par. (b) or (c). For magnet wire coating machines, temperature can be monitored below or after the catalyst bed.	1. Collecting the temperature data according to s. NR 465.48(9)(c); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average temperature before, or, for magnet wire coating machines, after the catalyst bed at or above the temperature limit.
	(b) Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to s. NR 465.48(8)(b)2.	1. Collecting the temperature data according to s. NR 465.48(9)(c); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	(c) Develop and implement an inspection and maintenance plan according to s. NR 465.48(8)(b)4., or, for magnet wire coating machines, according to section 3.0 of 40 CFR part 63, Subpart MMMM, Appendix A, incorporated by reference in s. NR 484.04(24g).	1. Maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by s. NR 465.48(8)(b)4., or, for magnet wire coating machines, by section 3.0 of 40 CFR part 63, Subpart MMMM, Appendix A, incorporated by reference in s. NR 484.04(24g), you shall take corrective action as soon as practicable consistent with the manufacturer's recommendations.

Table 1 (Continued)
Operating Limits if Using the Emission Rate With Add-On Controls Option in s. NR 465.43(2)©

For the following device:	You shall meet the following operating limit:	And you shall demonstrate continuous compliance with the operating limit by:
(3) Regenerative carbon adsorber	(a) The total regeneration desorbing gas mass flow for each carbon bed regeneration cycle may not fall below the total regeneration desorbing gas mass flow limit established according to s. NR 465.48(8)(c).	1. Measuring the total regeneration desorbing gas mass flow for each regeneration cycle according to s. NR 465.48(9)(d); and 2. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	(b) The temperature of the carbon bed, after completing each regeneration and any cooling cycle, may not exceed the carbon bed temperature limit established according to s. NR 465.48(8)(c).	1. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to s. NR 465.48(9)(d); and 2. Operating the carbon beds so that each carbon bed is not returned to service after completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
(4) Condenser	(a) The average condenser outlet, or product side, gas temperature in any 3-hour period may not exceed the temperature limit established according to s. NR 465.48(8)(d).	1. Collecting the condenser outlet gas temperature according to s. NR 465.48(9)(e); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
(5) Concentrators, including zeolite wheels and rotary carbon adsorbers	(a) The average gas temperature of the desorption concentrate stream in any 3-hour period may not fall below the limit established according to s. NR 465.48(8)(e).	1. Collecting the temperature data according to s. NR 465.48(9)(f); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average temperature at or above the temperature limit.
	(b) The average pressure drop of the dilute stream across the concentrator in any 3-hour period may not fall below the limit established according to s. NR 465.48(8)(e).	1. Collecting the pressure drop data according to s. NR 465.48(9)(f); 2. Reducing the pressure drop data to 3-hour block averages; and 3. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.

Table 1 (Continued)
Operating Limits if Using the Emission Rate With Add-On Controls Option in s. NR 465.43(2)©

For the following device:	You shall meet the following operating limit:	And you shall demonstrate continuous compliance with the operating limit by:
(6) Emission capture system that is a PTE according to s. NR 465.48(6)(a).	(a) The direction of the air flow at all times shall be into the enclosure; and either (b) or (c) shall be satisfied.	1. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to s. NR 465.48(9)(g)1. or the pressure drop across the enclosure according to s. NR 465.48(9)(g)2.; and 2. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	(b) The average facial velocity of air through all natural draft openings in the enclosure shall be at least 200 feet per minute.	1. See items (6)(a)1. and 2.
	(c) The pressure drop across the enclosure shall be at least 0.007 inch H2O, as established in Method 204 in 40 CFR part 51, Appendix M, incorporated by reference in s. NR 484.04(9).	1. See items (6)(a)1. and 2.
(7) Emission capture system that is not a PTE according to s. NR 465.48(6)(a)	(a) The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period may not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to s. NR 465.48(8)(f).	1. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to s. NR 465.48(9)(g); 2. Reducing the data to 3-hour block averages; and 3. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

Table 2

Default Organic HAP Mass Fraction for Solvents and Solvent Blends

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction shall be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from Table 4 of this subchapter if neither the name or CAS number match.

Solvent or Solvent Blend	CAS No.	Average Organic HAP Mass Fraction	Typical Organic HAP, percent by mass
(1) Toluene	108-88-3	1.0	toluene
(2) Xylenes	1330-20-7	1.0	xylenes, ethylbenzene
(3) Hexane	110-54-3	0.5	n-hexane
(4) n-Hexane	110-54-3	1.0	n-hexane
(5) Ethylbenzene	100-41-4	1.0	ethylbenzene
(6) Aliphatic 140	-----	0	none
(7) Aromatic 100	-----	0.02	1% xylene, 1% cumene
(8) Aromatic 150	-----	0.09	naphthalene
(9) Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene
(10) Aromatic solvent	64742-94-5	0.1	naphthalene
(11) Exempt mineral spirits	8032-32-4	0	none
(12) Ligroines (VM & P)	8032-32-4	0	none
(13) Lactol spirits	64742-89-6	0.15	toluene
(14) Low aromatic white spirit	64742-82-1	0	none
(15) Mineral spirits	64742-88-7	0.01	xylenes
(16) Hydrotreated naphta	64742-48-9	0	none
(17) Hydrotreated light distillate	64742-82-1	0	none
(18) Stoddard solvent	8052-41-3	0.01	xylenes
(19) Super high-flash naphta	64742-95-6	0.05	xylenes
(20) Varsol® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene
(21) VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene
(22) Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl

Table 3

Default Organic HAP Mass Fraction for Petroleum Solvent Groups [a]

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

Solvent Type	Average Organic HAP Mass Fraction	Typical Organic HAP, percent by mass
Aliphatic [b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic [c]	0.06	4% Xylene, 1% Toluene and 1% Ethylbenzene.

a Use this table only if the solvent blend does not match any of the solvent blends in Table 2 by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

b Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

c Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

SECTION 10. NR 484.03(intro.) is amended to read:

NR 484.03 Code of federal regulations. (intro.) The federal regulations in effect on ~~April 1, 2002~~ the effective date of this section .... [revisor inserts date] listed in the first column of Table 1 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Table 1.

SECTION 11. NR 484.04(intro.), (9) and (24) are amended to read:

NR 484.04 Code of federal regulations appendices. (intro.) The appendices to federal regulations in effect on ~~April 1, 2002~~ the effective date of this section .... [revisor inserts date] listed in the first column of Table 2 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 or code of federal regulations appendix method listed in the third column of Table 2. Since some of these materials are incorporated by reference for another appendix of the code of federal regulations and the other appendix is also incorporated by reference in this section, the materials listed in this section which are incorporated by reference for the other appendix are hereby also incorporated by reference and made a part of this chapter.

CFR Appendix Referenced	Title	Incorporated by Reference For
NR 484.04 (9) 40 CFR part 51 Appendix M	Recommended Test Methods for State Implementation Plans	NR 439 NR 460.06(4)(b)(intro.)

			NR 465.09(4) (b)1. and 2. NR 465.22(25), (29) and (31) NR 465.25(3)(k)4. and 5.a. and b. NR 465.28(6)(b)1.a., b. and d. and 2.a., b. and c. and Table 1 of subch. III in ch. NR 465 NR 465 subchs. IV and V NR 466.09(5)
(24)	40 CFR part 63, Subpart KK, Appendix A	Data Quality Objective and Lower Confidence Limit Approaches for Alternative Capture Efficiency Protocols and Test Methods	NR 439.06(3)(am) NR 465.09(4)(b)3. NR 465.25(1)(b)9.a. NR 465.28(6)(b)3. NR 465.35(1)(c)9.a. NR 465.38(6)(e) NR 465.45(1)(c)9.a. NR 465.48(6)(e) NR 466.09(6)

SECTION 12. NR 484.04(24g) and (24r) are created to read:

	CFR Appendix Referenced	Title	Incorporated by Reference For
NR 484.04			
(24g)	40 CFR part 63, Subpart MMMM, Appendix A	Alternative Capture Efficiency and Destruction Efficiency Measurement and Monitoring Procedures for Magnet Wire Coating Operations	NR 465 subch. V
(24r)	40 CFR part 63, Subpart PPPP, Appendix A	Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives	NR 465 subchs. IV and V

SECTION 13. NR 484.10(intro.), (22) and (39e) are amended to read:

NR 484.10(intro.) American Society for Testing and Materials. The American Society for Testing and Materials (ASTM) standards listed in the first column of Table 5 are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 in the third column of Table 5. Some ~~of the~~ standards are ~~also~~ incorporated ~~for Appendix A or B of 40 CFR part 60, Appendix B of 40 CFR part 61 or Appendix A, D, E, F or G of 40 CFR part 75 as in effect on April 1, 2002. Since these Appendices are incorporated by reference in s. NR 484.04, this chapter and therefore the standards listed in this section~~

~~which are incorporated by reference for the Appendices listed document are hereby also incorporated by reference and made a part of this chapter and chs. NR 400 to 439 and 445 to 499~~ into other documents which are separately incorporated by reference in this chapter. Those documents are also listed in the third column of Table 5.

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10 (22) ASTM D1475-98(2003)	Standard Test Method for Density of Liquid Coatings, Inks, and Related Products	40 CFR part 60 Appendix A: Method 24, par. 6.1 Method 24A, pars. 6.5 and 7.1 NR 465.26(2)(b)3. and (c) NR 465.37(2)(c) NR 465.46(2)(b)4. and (c) NR 465.47(2)(c)
(39e) ASTM D2697-86 (1998)	Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings	NR 465.26(2)(b)1. NR 465.46(2)(b)1.

SECTION 14. NR 484.10(55c), (55i) and (55L) are created to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10 (55c) ASTM D5291-02	Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants	40 CFR part 63, Subpart MMMM, Appendix A
(55i) ASTM D5965-02	Standard Test Methods for Specific Gravity of Coating Powders	NR 465.47(2)(c)
(55L) ASTM D6053-00	Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes	40 CFR part 63, Subpart MMMM, Appendix A

SECTION 15. NR 484.10(55m) is amended to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10 (55m) ASTM D6093-97(2003)	Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer	NR 465.26(2)(b)1. NR 465.46(2)(b)1.

SECTION 16. NR 484.10(56m) is created to read:

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10 (56m) ASTM E145-94(2001)	Standard Specification for Gravity-Convection and Forced-Ventilation Ovens	40 CFR part 63, Subpart PPPP, Appendix A

SECTION 17. NR 484.11(intro.) and (1) Table 6A are amended to read:

NR 484.11(intro.) Other private organizations. The following materials from other private organizations listed in the first column of Tables 6A to 6K are incorporated by reference for the corresponding sections of chs. NR 400 to 439 and 445 to 499 listed in the third column of Tables 6A to 6K. ~~A test method is also incorporated for 40 CFR 63.457 as in effect on April 1, 2002. Since that CFR section is incorporated by reference in s. NR 484.03(6), the test method listed in this section which is incorporated by reference for it is hereby also incorporated by reference and made part of this chapter and chs. NR 400 to 439 and 445 to 499.~~ Some of the materials are incorporated into other documents which are separately incorporated by reference in this chapter. Those documents are also listed in the third column of Tables 6A to 6K.

(1) **Table 6A**
AAMA Document Reference

Document Number	Title	Incorporated by Reference For
AAMA ~~2604-98~~ 2604-02	Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings On Aluminum Extrusions and Panels	NR 422.02(42) NR 465.42(21)

SECTION 18. EFFECTIVE DATE. This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 19. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on September 28, 2005.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By_____
Scott Hassett, Secretary

(SEAL)