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

The Wisconsin Natural Resources Board proposes an order to **amend** NR 439.08(1)(c) to (f) and (2)(b), 439.085(2)(a)1., (b)1. and (c)1., 460.02(intro.) and (5), 484.04(15), (18) and (20m), 484.10(7), (8), (30), (33), (42) and (47m) and 484.11(6)(b) and to **create** NR 460.02(40), 460.03(3)(dm) and (f) to (h), 460 Appendix DDDDD, 462, 484.04(24m), 484.06(4) third Note, (c), (d) and (e) and 484.10(26m), (47L), (55p), (55t), (55x), (56d), (56h), (56p) and (56t) relating to national emission standards for hazardous air pollutants for industrial, commercial and institutional boilers and process heaters.

AM-28-05

Summary Prepared by the Department of Natural Resources

Statutes interpreted: ss. 285.11(6) and 285.27(2)(a), Stats.

Statutory authority: ss. 227.11(2)(a), 285.11(1) and 285.27(2)(a), 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 this NESHAP affects 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: NESHAP regulations for other source categories are contained in chapters NR 460 to 469.

Plain language analysis: The US EPA promulgated the NESHAP for industrial, commercial and institutional boilers and process heaters, effective on September 13, 2004 (40 CFR Part 63, Subpart DDDDD). The NESHAP establishes maximum achievable control technology (MACT) requirements for this source category. The proposed rules will incorporate this NESHAP into the Wisconsin Administrative Code.

Summary of, and comparison with, existing or proposed federal regulation: As noted above, the federal NESHAP for this source category is an existing federal regulation. While some changes to the federal rule language and organization were made to accommodate state administrative rule format and style, no substantive changes were made. In most parts of the proposed rule, the federal format and language was retained as allowed under s. 227.14(1m)(a), Stats., and the proposed state rule is essentially identical to the federal NESHAP.

Comparison with similar rules in adjacent states: The federal NESHAP regulation for this source category is in effect in every state in the nation, and all affected sources in any state are required to comply with the federal rule. 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 rule.

Summary of factual data and analytical methodologies: Since the Department is merely adopting a federal regulation, the Department has not compiled any factual data nor used any analytical methodologies. Please see the federal documentation supporting the development and promulgation of the federal regulation at http://www.epa.gov/ttn/atw/boiler/boilerpg.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 this regulation. See http://www.epa.gov/ttn/atw/boiler/boilerpg.html.
Anticipated costs incurred by the private sector: Because the federal regulation is in effect and all affected sources must comply with it, no additional costs will be incurred by the private sector as a result of the promulgation of the state rule.

Effect on small business: Because the federal regulation is in effect and all affected sources must comply with it, 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.

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SECTION 1. NR 439.08(1)(c) to (f) and (2)(b) are amended to read:

NR 439.08(1)(c) *Sulfur content in coal.* The sulfur content of a coal sample shall be determined according to ASTM ~~D3177-89~~ D3177-02, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke, or ASTM ~~D4239-02~~ D4239-04a, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, both incorporated by reference in s. NR 484.10(45) and (53).

(d) *Heat content in coal.* The heat content of a coal sample shall be determined according to ASTM ~~D5865-02~~ D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke, incorporated by reference in s. NR 484.10(55g).

(e) *Ash content in coal.* The ash content of a coal sample shall be determined according to ASTM ~~D3174-00~~ D3174-04, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal, incorporated by reference in s. NR 484.10(43).

(f) *Moisture content in coal.* The moisture content of a coal sample shall be determined according to ASTM ~~D3173-00~~ D3173-02, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, incorporated by reference in s. NR 484.10(42).

(2)(b) *Sulfur content in liquid fossil fuel.* The sulfur content of a liquid fossil fuel sample shall be determined according to ASTM D129-00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), ASTM ~~D1552-01~~ D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), or ASTM ~~D4294-02~~ D4294-03, Standard Test Method for Sulfur in Petroleum Products by Energy-Dispersive X-ray Fluorescence Spectroscopy, incorporated by reference in s. NR 484.10(3), (25) and (54).

SECTION 2. NR 439.085(2)(a)1., (b)1. and (c)1., are amended to read:

NR 439.085(2)(a)1. Perform coal sampling, using the procedures in ASTM ~~D2234-02~~ D2234/D2234M-03e1, incorporated by reference in s. NR 484.10(33), which result in data at least as reliable as classification I-B-1, defined in ASTM ~~D2234-02~~ D2234/D2234M-03e1 as automatic sampling — full stream cut — systematic spacing, and analyze these samples for ash content, sulfur content and heat content according to the applicable methods and procedures in s.

NR 439.08(1).

(b)1. Perform coal sampling using the procedures in ASTM ~~D2234-02~~ D2234/D2234M-03e1, incorporated by reference in s. NR 484.10(33), which result in data at least as reliable as classification I-C-2, defined in ASTM ~~D2234-02~~ D2234/D2234M-03e1 as automatic sampling — part stream cut — random spacing, and analyze these samples for ash content, sulfur content and heat content according to the applicable methods and procedures in s. NR 439.08(1).

(c)1. Perform coal sampling using the procedures in ASTM ~~D2234-02~~ D2234/D2234M-03e1, incorporated by reference in s. NR 484.10(33), which result in data at least as reliable as classification II-D-2, defined in ASTM ~~D2234-02~~ D2234/D2234M-03e1 as manual sampling — stationary coal sampling — random spacing, and analyze these samples for ash content, sulfur content and heat content according to the applicable methods and procedures in s. NR 439.08(1).

SECTION 3. NR 460.02(intro.), (1)(a) and (b) Note, as created in AM-06-05 and CR 05-039, and (5) are amended to read:

NR 460.02 Definitions. (intro.) For terms not defined in this section, the definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, the definitions in this section apply to the terms used in this chapter and, for terms not defined in chs. NR ~~463,~~ 462 to 464 and 466 to 469 or the subchapters of ch. NR 465, to the terms used in those chapters or subchapters as well. If this section defines a term which is also defined in ch. NR 400, the definition in this section applies in this chapter and in chs. NR ~~463,~~ 462 to 464 and 466 to 469 and the subchapters of ch. NR 465 rather than the definition in ch. NR 400, except that when one of those chapters or subchapters has its own definition of the term, that definition applies in that chapter or subchapter.

(1)(a) For each section 112(d) (42 USC 7412(d)) standard for which the initial proposed rule is signed by the administrator on or before June 30, 2002, the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to section 112 of the Act (42 USC 7412). Each relevant standard in chs. NR ~~463~~ 462 to 469 may further define the "affected source" for the purposes of that standard.

(b)Note: Each relevant standard will define the affected source as defined in sub. (1) unless the administrator finds that a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical or implementation problems and why the different definition would resolve those problems. The term affected source, as used in this chapter and chs. NR ~~463~~ 462 to 469, is separate and distinct from any other use of that term in EPA or department regulations such as those implementing title IV of the Act or the Wisconsin acid rain control program. Affected source may be

defined differently for 40 CFR part 63 than "affected facility" and "stationary source" in 40 CFR parts 60 and 61, respectively. The procedures for adopting an alternative definition of affected source apply to each section 112(d) standard (42 USC 7412(d)) for which the initial proposed rule is signed by the administrator after June 30, 2002.

(5) "Area source" means any stationary source of hazardous air pollutants that is not a major source as defined in this chapter or chs. NR ~~463~~ 462 to 469.

SECTION 4. NR 460.02(40) is created to read:

NR 460.02(40) "You" or "your" means the owner or operator of a facility that is subject to requirements under the chapter where the term is used.

SECTION 5. NR 460.03(3)(dm) and (f) to (h) are created to read:

NR 460.03(3)(dm) "CPMS" - continuous parameter monitoring system

(f) "PS" - performance specification

(g) "SSM" - startup, shutdown or malfunction

(h) "SSMP" - startup, shutdown and malfunction plan

SECTION 6. NR 460 Appendix DDDDD, to follow Appendix PPPP as created by Clearinghouse Rule CR 05-040, is created to read:

Chapter NR 460

Appendix DDDDD

General Provisions Applicability to Chapter NR 462

As stated in s. NR 462.04(4), you shall comply with the applicable general provisions according to the following:

Citation	Subject	Description	Applicable?
NR 2	Availability of information	Public and confidential information.	Yes
NR 460.02	Definitions	Definitions for chs. NR 460 to 469.	Yes
NR 460.03	Units and Abbreviations	Units and abbreviations for chs. NR 460 to 469.	Yes
NR 460.04	Prohibited Activities	Prohibited activities, compliance date, circumvention, severability.	Yes
NR 406	Construction and Reconstruction	Applicability, applications, approvals.	Yes
NR 460.05(1)	Applicability	General provisions apply unless compliance extension; and general provisions apply to area sources that become major.	Yes
NR 460.05(2)(a) to (d)	Compliance dates for new and reconstructed sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f) of the Act (42 USC 7412(f)).	Yes
NR 460.05(2)(e)	Notification	Shall notify if commenced construction or reconstruction after proposal.	Yes
NR 460.05(2)(f)	Compliance dates for new and reconstructed area sources that become major	Area sources that become major shall comply with major source standards immediately upon becoming major regardless of whether required to comply when they were an area source.	Yes
NR 460.05(3)(a) and (b)	Compliance dates for existing sources	Comply according to date in ch. NR 462, which shall be no later than 3 years after effective date; and for section 112(f) standards (42 USC 7412(f)), comply within 90 days of effective date unless compliance extension.	Yes
NR 460.05(3)(c)1. and 2.	Compliance dates for existing areas sources that become major	Area sources that become major shall comply with major source standards by date indicated in ch. NR 462 or by equivalent time period, for example, 3 years.	Yes
NR 460.05(4)(a) and (b)	Operation and maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; operation and maintenance requirements independently enforced; information department will use to determine if operation and maintenance requirements were met.	Yes
NR 460.05(4)(c)	Startup, shutdown and malfunction plan (SSMP)	Requirement for SSM and SSM plan and content of SSMP.	Yes
NR 460.05(5)	Compliance except during SSM	Comply with emission standards at all times except during SSM.	Yes
NR 460.05(6)(a)	Compliance with opacity and visible emission standards	Comply with opacity and visible emission limitations at all times except during SSM.	Yes
NR 460.05(6)(b)1.	Determining compliance with opacity and visible emission standards	If standard does not state test method, use Method 9 in 40 CFR part 60 Appendix A, incorporated by reference in s. NR 484.04(13), for opacity and Method 22 in 40 CFR part 60 Appendix A,	No

Citation	Subject	Description	Applicable?
		incorporated by reference in s. NR 484.04(18), for visible emissions.	
NR 460.05(6)(b)2.	Using previous tests to demonstrate compliance with opacity and visible emission standards	Criteria for when previous opacity or visible emission testing can be used to show compliance with ch. NR 462.	Yes
NR 460.05(6)(c)	Notification of opacity or visible emission observation data	Notify department of anticipated date of observation.	No
NR 460.05(6)(d) 1., 3. and 4.	Conducting opacity and visible emissions observations	Dates and schedule for conducting opacity and visible emission observations.	No
NR 460.05(6)(d)2.	Opacity test duration and averaging times	Shall have at least 3 hours of observation with 30 6-minute averages.	No
NR 460.05(6)(e)	Records of conditions during opacity and visible emissions observations	Keep records available and allow department to inspect.	No
NR 460.05(6)(f)1.	Report continuous opacity monitoring system (COMS) monitoring data from performance test	Submit continuous opacity monitoring system data with other performance test data.	Yes
NR 460.05(6)(f)2.	Using COMS instead of Method 9	Can submit continuous opacity monitoring system data instead of results from Method 9 in 40 CFR part 60 Appendix A, incorporated by reference in s. NR 484.04(13), even if ch. NR 462 requires Method 9, but shall notify department before performance test.	No
NR 460.05(6)(f)3.	Averaging time for COMS during performance test	To determine compliance, shall reduce continuous opacity monitoring system data to 6-minute averages.	Yes
NR 460.05(6)(f)4.	COMS requirements	Demonstrate that continuous opacity monitoring system performance evaluations are conducted according to s. NR 460.07(5), continuous opacity monitoring systems are properly maintained and operated according to s. NR 460.07(3) and monitoring data quality is assured according to s. NR 460.07(4).	Yes
NR 460.05(6)(f)5.	Determining compliance with opacity and visible emissions standards	Continuous opacity monitoring system is probative but not conclusive evidence of compliance with opacity standard, even if observation using Method 9 in 40 CFR part 60 Appendix A, incorporated by reference in s. NR 484.04(13), shows otherwise. Requirements for continuous opacity monitoring system to be probative evidence-proper maintenance meeting PS 1 in 40 CFR part 60 Appendix B, incorporated by reference in s. NR 484.04(21), and data have not been altered.	Yes
NR 460.05(6)(g)	Determining compliance with opacity and visible emission standards	Department will use all continuous opacity monitoring system data, results of Method 9 in 40 CFR part 60 Appendix A, incorporated by reference in s. NR 484.04(13), and Method 22 in 40 CFR part 60 Appendix A, incorporated by reference in s. NR 484.04(18), as well as information about operation and maintenance to	Yes

Citation	Subject	Description	Applicable?
		determine compliance.	
NR 460.05(7)	Compliance extension	Procedures and criteria for department to grant compliance extension.	Yes
NR 460.06(1)(a)	Performance test dates	Dates for conducting initial performance testing and other compliance demonstrations.	Yes
NR 460.06(1)(b)	Performance test dates	New source with initial startup date before effective date has 180 days after effective date to demonstrate compliance.	Yes
NR 460.06(1)(b)7.	Performance test dates	1. New source that commences construction between proposal and promulgation dates, when promulgated standard is more stringent than proposed standard, has 180 days after effective date or 180 days after startup of source, whichever is later, to demonstrate compliance. 2. If source initially demonstrates compliance with less stringent proposed standard, it has 3 years and 180 days after the effective date of the standard or 180 days after startup of source, whichever is later, to demonstrate compliance with promulgated standard.	Yes No
NR 460.06(2)	Notification of performance test Notification of rescheduling Site-specific test plan	Shall notify the department 20 days before the test. If rescheduling a performance test is necessary, shall notify the department 5 days before scheduled date of the rescheduled date. Requirement to submit site-specific test plan 20 days before the test or on date the department agrees with; test plan approval procedures; performance audit requirements.	No Yes Yes
NR 460.06(3)	Testing facilities	Requirements for testing facilities.	Yes
NR 460.06(4)(a)	Conditions for conducting performance tests	1. Performance tests shall be conducted under representative conditions; and 2. May not conduct performance tests during SSM; and 3. Not a deviation to exceed standard during SSM; and 4. Upon request of department, make available records necessary to determine conditions of performance test.	No Yes Yes Yes
NR 460.06(4)(b)	Conditions for conducting performance tests	Shall conduct according to rule and EPA test methods unless department approves alternative.	Yes
NR 460.06(4)(c)	Test run duration	Shall have 3 separate test runs; and compliance is based on arithmetic mean of 3 runs; and conditions when data from an additional test run can be used.	Yes
NR 460.06(5)	Alternative test method	Procedures by which department can grant approval to use an alternative test method.	Yes
NR 460.06(6)	Performance test data analysis	Shall include raw data in performance test report; and shall submit performance test data 60 days after end of test with the Notification of Compliance Status; and keep data for 5 years.	Yes
NR 460.06(7)	Waiver of tests	Procedures for department to waive performance test	Yes
NR 460.07(1)(a)	Applicability of monitoring requirements	Subject to all monitoring requirements in standard.	Yes

Citation	Subject	Description	Applicable?
NR 460.07(1)(b)	Performance specifications	Performance specifications in 40 CFR part 60 Appendix B apply.	Yes
NR 460.07(1)(c)	Monitoring with flares	Unless your rule says otherwise, the requirements for flares in s. NR 460.10 apply.	No
NR 460.07(2)(a)1. and 2.	Monitoring	Shall conduct monitoring according to standard unless department approves alternative.	Yes
NR 460.07(2)(am)	Monitoring	Flares not subject to this section unless otherwise specified in relevant standard.	No
NR 460.07(2)(b) and (c)	Multiple effluents and multiple monitoring systems	Specific requirements for installing monitoring systems; and shall install on each effluent before it is combined and before it is released to the atmosphere unless department approves otherwise; and if more than one monitoring system on an emission point, shall report all monitoring system results, unless one monitoring system is a backup.	Yes
NR 460.07(3)(a)	Monitoring system operation and maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes
NR 460.07(3)(a)1.	Routine and predictable SSM	Maintain and operate CMS according to s. NR 460.05(4)(a).	Yes
NR 460.07(3)(a)2.	SSM not in SSMP	Shall keep necessary parts available for routine repairs of CMS.	Yes
NR 460.07(3)(a)3.	Compliance with operation and maintenance requirements	Shall develop and implement an SSMP for CMS.	Yes
NR 460.07(3)(b) and (c)	Monitoring system installation	Shall install to get representative emission and parameter measurements; and shall verify operational status before or at performance test.	Yes
NR 460.07(3)(d)	Continuous monitoring system (CMS) requirements	CMS shall be operating except during breakdown, out-of-control, repair, maintenance and high-level calibration drifts.	No
NR 460.07(3)(d)1.	CMS requirements	Continuous opacity monitoring system shall have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period.	Yes
NR 460.07(3)(d)2.	CMS requirements	Continuous emissions monitoring system shall have a minimum of one cycle of operation for each successive 15-minute period.	No
NR 460.07(3)(e)	COMS requirements	Shall do daily zero and high level calibrations.	Yes
NR 460.07(3)(f)	CMS requirements	Shall do daily zero and high level calibrations.	No
NR 460.07(3)(g) and (h)	CMS requirements	Out-of-control periods, including reporting.	Yes
NR 460.07(4)	CMS quality control	Requirements for continuous monitoring systems quality control, including calibration; and shall keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions.	Yes
NR 460.07(5)	CMS performance evaluation	Notification, performance evaluation test plan, reports.	Yes
NR 460.07(6)(a) to (d)	Alternative monitoring method	Procedures for department to approve alternative monitoring.	Yes
NR 460.07(6)(e)	Alternative to relative accuracy test	Procedures for department to approve alternative to relative accuracy tests for continuous emissions	No

Citation	Subject	Description	Applicable?
		monitoring system.	
NR 460.07(7)(a) to (d)	Data reduction	Continuous opacity monitoring system 6-minute averages calculated over at least 36 evenly spaced data points; and continuous emissions monitoring system 1-hour averages computed over at least 4 equally spaced data points.	Yes
NR 460.07(7)(e)	Data reduction	Data that cannot be used in computing averages for continuous emission monitoring system and continuous opacity monitoring system.	No
NR 460.08(1)	Notification requirements	Applicability and general information.	Yes
NR 460.08(2)	Initial notifications	Submit notification 120 days after effective date; and notification of intent to construct or reconstruct; and notification of commencement of construction or reconstruction; notification of startup; and contents of each.	Yes
NR 460.08(3)	Request for compliance extension	May request if cannot comply by date or if installed BACT/LAER.	Yes
NR 460.08(4)	Notification of special compliance requirements for new source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes
NR 460.08(5)	Notification of performance test	Notify department 60 days prior.	No
NR 460.08(6)	Notification of visible emissions/opacity test	Notify department 30 days prior.	No
NR 460.08(7)	Additional notifications when using CMS	Notification of performance evaluation; and notification using continuous opacity monitoring system data; and notification that exceeded criterion for relative accuracy.	Yes
NR 460.08(8)	Notification of compliance status	Contents; and due 60 days after end of performance test or other compliance demonstration.	Yes
NR 460.08(9)	Adjustment of submittal deadlines	Procedures for department to approve change in when notifications shall be submitted.	Yes
NR 460.08(10)	Change in previous information	Shall submit within 15 days after the change.	Yes
NR 460.09(1)	Recordkeeping and reporting	Applies to all, unless compliance extension; and procedures for owners of more than one source.	Yes
NR 460.09(2)(a)	Recordkeeping and reporting	General requirements; and keep all records readily available and keep for 5 years.	Yes
NR 460.09(2)(b)1. to 5.	Reports related to startup, shutdown and malfunction	Occurrence of each operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown and malfunction.	Yes
NR 460.09(2)(b)6., 10. and 11.	CMS records	Malfunctions, inoperative, out-of-control; and calibration checks; and adjustments, maintenance.	Yes
NR 460.09(2)(b)7. to 9.	Records	Measurements to demonstrate compliance with emission limitations; and performance test, performance evaluation and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations.	Yes
NR 460.09(2)(b)12.	Records	Records when under waiver.	Yes
NR	Records	Records when using alternative to relative	No

Citation	Subject	Description	Applicable?
460.09(2)(b)13.		accuracy test.	
NR 460.09(2)(b)14.	Records	All documentation supporting initial notification and notification of compliance status.	Yes
NR 460.09(2)(c)	Records	Applicability determinations.	Yes
NR 460.09(3)(a)1., 2. to 5. and 6. to 10. and (3)(b)	Records	Additional records for continuous monitoring systems.	Yes
460.09(3)(a)4. and 5.	Records	Records of excess emissions and parameter monitoring exceedances for continuous monitoring systems.	No
NR 460.09(4)(a)	General reporting requirements	Requirements to report.	Yes
NR 460.09(4)(b)	Report of performance test results	When to submit to the department.	Yes
NR 460.09(4)(c)	Reporting opacity or visible emissions observations	What to report and when.	Yes
NR 460.09(4)(d)	Progress reports	Shall submit progress reports on schedule if under compliance extension.	Yes
NR 460.09(4)(e)	Startup, shutdown and malfunction reports	Contents and submission.	Yes
NR 460.09(5)(a) and (b)	Additional CMS reports	Report results for each CEM on a unit; and written copy of performance evaluation; and 3 copies of continuous opacity monitoring system performance evaluation.	Yes
NR 460.09(5)(c)	Reports	Excess emission reports.	No
NR 460.09(5)(c)1. to 3.	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	No
NR 460.09(5)(c)4. and 5.	Excess emissions reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations); and provision to request semiannual reporting after compliance for one year; and submit report by 30th day following end of quarter or calendar half; and if there has not been an exceedance or excess emissions (now defined as deviations), report content is a statement that there have been no deviations.	No
NR 460.09(5)(c)4. and 5.	Excess emissions reports	Shall submit report containing all of the information in ss. NR 460.07(3)(g) and (h) and 460.09(3)(a)2. to 9.	No
NR 460.09(5)(c)6. to 8.	Excess emissions report and summary report	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations); requires all the information in ss. NR 460.09(3)(a)2. to 9. and 460.07(3)(g) and (h).	No
NR 460.09(5)(d)	Reporting COMS data	Shall submit continuous opacity monitoring system data with performance test data.	Yes
NR 460.09(6)	Waiver for recordkeeping and reporting	Procedures for department to waive.	Yes
NR 460.10	Flares	Requirements for flares.	No
NR 484	Incorporation by reference	Test methods incorporated by reference.	Yes

SECTION 7. Chapter NR 462 is created to read:

Chapter NR 462

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters

NR 462.01 What this chapter covers. (1) WHAT IS THE PURPOSE OF THIS CHAPTER? This chapter establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial and institutional boilers and process heaters. This chapter also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

Note: This subchapter is based on the federal regulations contained in 40 CFR part 63 Subpart DDDDD, as created September 13, 2004 and amended on December 28, 2005.

(2) AM I SUBJECT TO THIS CHAPTER? You are subject to this chapter if you own or operate an industrial, commercial or institutional boiler or process heater as defined in s. NR 462.02 that is located at, or is part of, a major source of HAP as defined in s. NR 460.02(24) or 40 CFR 63.761 except as specified in sub. (4).

(3) WHAT IS THE AFFECTED SOURCE OF THIS CHAPTER? (a) This chapter applies to new, reconstructed, or existing affected sources as described in subds. 1. and 2.

1. The affected source of this chapter is the collection of all existing industrial, commercial and institutional boilers and process heaters, as defined in s. NR 462.02, within a subcategory located at a major source.

2. The affected source of this chapter is each new or reconstructed industrial, commercial or institutional boiler or process heater, as defined in s. NR 462.02, located at a major source.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in s. NR 460.02(32), you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

(4) ARE ANY BOILERS OR PROCESS HEATERS NOT SUBJECT TO THIS CHAPTER? The types of boilers and process heaters listed in pars. (a) to (o) are not subject to this chapter.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, BBBB, Cb or Eb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or Ec.

(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output, to any utility power distribution system for sale is considered an electric utility steam generating unit.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE, such as a hazardous waste boiler.

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A water heater as defined in s. NR 462.02(51).

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document entitled "National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Plants--Background Information for Proposed Standards," EPA-453/R-01-005, incorporated by reference in s. NR 484.06(4)(d).

(L) Any boiler and process heater specifically listed as an affected source in another standard under 40 CFR part 63 or chs. NR 462 to 469.

(m) Any boiler and process heater specifically listed as an affected source in another standard established under section 129 of the Act.

(n) Temporary boilers as defined in s. NR 462.02(47).

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in s. NR 462.02(4).

(5) WHEN DO I HAVE TO COMPLY WITH THIS CHAPTER? (a) If you have a new or reconstructed boiler or process heater, you shall comply with this chapter by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you shall comply with this chapter no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, subds. 1. and 2. apply to you.

1. Any new or reconstructed boiler or process heater at the existing facility shall be in compliance with this chapter upon startup.

2. Any existing boiler or process heater at the existing facility shall be in compliance with this chapter within 3 years after the facility becomes a major source.

(d) You shall meet the notification requirements in s. NR 462.07(1) according to the schedule in s. NR 462.07(1) and in ch. NR 460. Some of the notifications shall be submitted before you are required to comply with the emission limits and work practice standards in this chapter.

NR 462.02 What definitions apply to this chapter? For terms not defined in this section, the definitions contained in chs. NR 400 and 460 apply to the terms in this chapter, 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 chapter. In this chapter:

(1) "Annual capacity factor" means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

(2) "Bag leak detection system" means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter, i.e., baghouse, in order to detect bag failures. A bag leak detection system includes an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance or other principle to monitor relative particulate matter loadings.

(3) "Biomass fuel" means unadulterated wood as defined in sub. (49); wood residue and wood products, such as trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings and shavings; animal litter; vegetative agricultural and silvicultural materials, such as logging residues, nut and grain hulls and chaff, bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

(4) "Blast furnace gas fuel-fired boiler or process heater" means an industrial, commercial or institutional boiler or process heater that receives 90% or more of its total heat input, based on an annual average, from blast furnace gas.

(5) "Boiler" means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.

(6) "Coal" means all solid fuels classifiable as anthracite, bituminous, subbituminous or lignite by the American Society for Testing and Materials in ASTM D388-99e1, "Standard Classification of Coals by Rank",

incorporated by reference in s. NR 484.10(7), coal refuse and petroleum coke. This definition includes synthetic fuels derived from coal for the purpose of creating useful heat, including solvent-refined coal, coal-oil mixtures and coal-water mixtures. Coal derived gases are excluded from this definition.

(7) "Coal refuse" means any by-product of coal mining or coal cleaning operations with an ash content greater than 50% by weight and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

(8) "Commercial or institutional boiler" means a boiler used in commercial establishments or institutional establishments, such as medical centers, research centers, institutions of higher education, hotels and laundries, to provide one or more of the following: electricity, steam or hot water.

(9) "Construction and demolition material" means waste building materials that result from the construction or demolition operations on houses and commercial and industrial buildings.

(10)(a) "Deviation" means any instance in which an affected source subject to this chapter, or an owner or operator of an affected source, fails to meet one of the following:

1. Any requirement or obligation established by this chapter, including any emission limit, operating limit or work practice standard.

2. Any term or condition that is adopted to implement an applicable requirement in this chapter and that is included in the operating permit for any affected source required to obtain such a permit.

3. Any emission limit, operating limit or work practice standard in this chapter during startup, shutdown or malfunction regardless of whether or not the failure is permitted by this chapter.

(b) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the department.

(11) "Distillate oil" means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specification for Fuel Oils", incorporated by reference in s. NR 484.10(8).

(12) “Dry control system” means any emission control system that does not use water or any other liquid as part of the control process, such as a fabric filter control system.

(13) "Dry scrubber" means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.

(14) "Electric utility steam generating unit" means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

(15) "Electrostatic precipitator" means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface and transporting the particles into a hopper.

(16) "Fabric filter" means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

(17) "Federally enforceable" means all limitations and conditions that are enforceable by the EPA administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable state implementation plan and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

(18) "Firetube boiler" means a boiler in which hot gases of combustion pass through the tubes and water contacts the outside surfaces of the tubes.

(19) "Fossil fuel" means natural gas, petroleum, coal and any form of solid, liquid or gaseous fuel derived from those materials.

(20) "Fuel type" means each category of fuels that share a common name or classification. Examples include bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction and demolition material, salt water laden wood, creosote treated wood, tires and residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction and demolition material.

(21) "Gaseous fuel" includes natural gas, process gas, landfill gas, coal derived gas, refinery gas and biogas. Blast furnace gas is exempted from this definition.

(22) "Heat input" means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns and other similar sources.

(23) "Industrial boiler" means a boiler used in manufacturing, processing, mining and refining or any other industry to provide one or more of the following: electricity, steam or hot water.

(24) "Large gaseous fuel subcategory" includes any water tube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply

emergencies, has a rated capacity of greater than 10 mmBtu per hour heat input and has an annual capacity factor of greater than 10%.

(25) "Large liquid fuel subcategory" includes any water tube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 mmBtu per hour heat input and has an annual capacity factor of greater than 10%. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

(26) "Large solid fuel subcategory" includes any water tube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 mmBtu per hour heat input and has an annual capacity factor of greater than 10%.

(27) "Limited use gaseous fuel subcategory" includes any water tube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 mmBtu per hour heat input and has a federally enforceable annual average capacity factor of equal to or less than 10%.

(28) "Limited use liquid fuel subcategory" includes any water tube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 mmBtu per hour heat input and has a federally enforceable annual average capacity factor of equal to or less than 10%. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

(29) "Limited use solid fuel subcategory" includes any water tube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 mmBtu per hour heat input and has a federally enforceable annual average capacity factor of equal to or less than 10%.

(30) "Liquid fossil fuel" means petroleum, distillate oil, residual oil and any form of liquid fuel derived from these fuels.

(31) "Liquid fuel" includes distillate oil, residual oil, waste oil and process liquids.

(32) "Minimum pressure drop" means 90% of the lowest test-run average pressure drop measured according to Table 7 of this chapter during the most recent performance test demonstrating compliance with the applicable emission limit.

(33) "Minimum scrubber effluent pH" means 90% of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 of this chapter during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

(34) "Minimum scrubber flow rate" means 90% of the lowest test-run average flow rate measured according to Table 7 of this chapter during the most recent performance test demonstrating compliance with the applicable emission limit.

(35) "Minimum sorbent injection rate" means 90% of the lowest test-run average sorbent or activated carbon flow rate measured according to Table 7 of this chapter during the most recent performance test demonstrating compliance with the applicable emission limits.

(36) "Minimum voltage", “minimum secondary current” or “minimum total power input” means 90% of the lowest test-run average voltage or secondary current or total power input to the electrostatic precipitator measured according to Table 7 of this chapter during the most recent performance test demonstrating compliance with the applicable emission limits.

(37) "Natural gas" means one of the following:

(a) A naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane.

(b) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-03a, "Standard Specification for Liquid Petroleum Gases", incorporated by reference in s. NR 484.10(26m).

(38) "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

(39) "Particulate matter" means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this chapter, or an alternative method.

(40) "Period of natural gas curtailment" or "supply interruption" means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

(41) "Process heater" means an enclosed device using controlled flame that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into

contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption or autoclaves.

(42) "Residual oil" means crude oil and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specifications for Fuel Oils", incorporated by reference in s. NR 484.10(8).

(43) "Small gaseous fuel subcategory" includes any fire tube boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies and has a rated capacity of less than or equal to 10 mmBtu per hour heat input.

(44) "Small liquid fuel subcategory" includes any fire tube boiler that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and any boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels and has a rated capacity of less than or equal to 10 mmBtu per hour heat input. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

(45) "Small solid fuel subcategory" includes any fire tube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 mmBtu per hour heat input.

(46) "Solid fuel" includes coal, wood, biomass, tires, plastics and other non-fossil solid materials.

(47) "Temporary boiler" means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

(48) "Total selected metals" or "TSM" means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

(49) "Unadulterated wood" means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromated copper arsenate, pentachlorophenol and creosote. Plywood,

particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

(50) "Waste heat boiler" means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50% or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.

(51) "Water heater" means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

(52) "Water tube boiler" means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.

(53) "Wet scrubber" means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride, or both.

(54) "Work practice standard" means any design, equipment, work practice or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Act.

NR 462.03 Emission limits and work practice standards. (1) WHAT ARE THE SUBCATEGORIES OF BOILERS AND PROCESS HEATERS? The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel and small gaseous fuel. Each subcategory is defined in s. NR 462.02.

(2) WHAT EMISSION LIMITS, WORK PRACTICE STANDARDS AND OPERATING LIMITS MUST I MEET? (a) You shall meet the requirements in subds. 1. and 2.

1. You shall meet each emission limit and work practice standard in Table 1 of this chapter that applies to your boiler or process heater, except as provided under s. NR 462.04(3).

2. You shall meet each operating limit in Tables 2 to 4 of this chapter that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 to 4, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you shall apply to the administrator for approval of alternative monitoring under 40 CFR 63.8(f).

Note: The authority to approve alternative monitoring is retained by the administrator and is not delegated to the department.

(b) As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

NR 462.04 General compliance requirements. (1) WHAT ARE MY GENERAL REQUIREMENTS FOR COMPLYING WITH THIS CHAPTER? (a) You shall be in compliance with the emission limits, including operating limits, and the work practice standards in this chapter at all times, except during periods of startup, shutdown and malfunction.

(b) You shall always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in s. NR 460.05(4)(a)1.

(c) You may demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to s. NR 462.05(7)(d) is less than the applicable emission limit. Otherwise, you shall demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you shall develop a site-specific monitoring plan according to the requirements in subds. 1. to 4. This requirement also applies to you if you petition the EPA administrator for alternative monitoring parameters under 40 CFR 63.8(f).

Note: The authority to approve alternative monitoring parameters is retained by the administrator and is not delegated to the department.

1. For each continuous monitoring system (CMS) required in this subsection, you shall develop and submit to the department for approval a site-specific monitoring plan that addresses subd. 1.a. to c. You shall submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your CMS. The plan shall include all of the following:

a. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions, such as on or downstream of the last control device.

b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

c. Performance evaluation procedures and acceptance criteria, such as calibrations.

2. In your site-specific monitoring plan you shall also address subd. 2.a. to c.

a. Ongoing operation and maintenance procedures in accordance with the general requirements of s. NR 460.07(3)(a), (c) and (d)2.

b. Ongoing data quality assurance procedures in accordance with the general requirements of s. NR 460.07(4).

c. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of s. NR 460.09(3)(a) and (5)(a) and (b)1.

3. You shall conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

4. You shall operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you shall develop and implement a written startup, shutdown and malfunction plan (SSMP) according to the provisions in s. NR 460.05(4)(c).

(2) DO ANY BOILERS OR PROCESS HEATERS HAVE LIMITED REQUIREMENTS? (a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 of this chapter. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you shall meet the requirements in subds. 1. and 2. and meet the CO work practice standard in Table 1 of this chapter.

1. To demonstrate initial compliance, you shall include a signed statement in the notification of compliance status report required in s. NR 462.07(1)(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

2. To demonstrate continuous compliance with the applicable emission limits, you shall also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You shall also include a signed statement in each semiannual compliance report required in s. NR 462.07(2) that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in subds. 1. to 3. are subject to only the initial notification requirements in s. NR 460.08(2). They are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this chapter or any other requirements in ch. NR 460.

1. Existing large and limited use gaseous fuel units.

2. Existing large and limited use liquid fuel units.

3. New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning any other type of liquid fuel shall comply with all applicable requirements of this chapter and ch. NR 460 upon commencing the burning of the other type of liquid fuel.

(c) The affected boilers and process heaters listed in subds. 1. to 4. are not subject to the initial notification requirements in s. NR 460.08(2) and are not subject to any requirements in this chapter or in ch. NR 460. They are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this chapter or any other requirements in ch. NR 460.

1. Existing small solid fuel boilers and process heaters.

2. Existing small liquid fuel boilers and process heaters.

3. Existing small gaseous fuel boilers and process heaters.

4. New or reconstructed small gaseous fuel units.

(3) WHAT ARE THE HEALTH-BASED COMPLIANCE ALTERNATIVES FOR THE HYDROGEN CHLORIDE AND TOTAL SELECTED METALS STANDARDS? (a) As an alternative to the requirement to demonstrate compliance with the HCl emission limit in Table 1 of this chapter, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in 40 CFR part 63, subpart DDDDD, Appendix A, incorporated by reference in s. NR 484.04(24m).

(b) As an alternative to the requirement to demonstrate compliance with the TSM emission limit in Table 1 of this chapter based on the sum of emissions for the 8 selected metals, you may demonstrate eligibility for the health-based alternative for manganese emissions under the procedures prescribed in 40 CFR part 63, subpart DDDDD, Appendix A, incorporated by reference in s. NR 484.04(24m) and comply with the TSM emission standards in Table 1 based on the sum of emissions for 7 selected metals, by excluding manganese emissions from the summation of TSM emissions.

(4) WHAT PARTS OF THE GENERAL PROVISIONS APPLY TO ME? Appendix DDDDD of ch. NR 460 shows which parts of the general provisions in ch. NR 460 apply to you.

NR 462.05 Testing, fuel analyses and initial compliance requirements. (1) WHAT ARE MY INITIAL COMPLIANCE REQUIREMENTS AND DEADLINES? (a) For affected sources that elect to demonstrate compliance

with any of the emission limits of this chapter through performance testing, your initial compliance requirements include conducting performance tests according to sub. (3) and Table 5 of this chapter, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to sub. (4) and Table 6 of this chapter, establishing operating limits according to sub. (7) and Table 7 of this chapter, and conducting CMS performance evaluations according to sub. (6).

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to sub. (4) and Table 6 of this chapter and establish operating limits according to sub. (7) and Table 8 of this chapter.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 mmBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 of this chapter. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 mmBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to sub. (6)(a).

(d) For existing affected sources, you shall demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in s. NR 462.01(5) and according to the applicable provisions in s. NR 460.06(1)(b) as cited in Appendix DDDDD in ch. NR 460.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you shall demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to s. NR 460.06(1)(b)7.

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you shall conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you shall demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

(2) WHEN MUST I CONDUCT SUBSEQUENT PERFORMANCE TESTS OR FUEL ANALYSES? (a) You shall conduct all applicable performance tests according to sub. (3) on an annual basis, unless you follow the requirements listed in pars. (b) to (d). Annual performance tests shall be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in pars. (b) to (d).

(b) You may conduct performance tests less often for a given pollutant if your performance tests for the pollutant - particulate matter, HCl, mercury or TSM - for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You shall conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury or TSM, you may choose to conduct performance tests for these pollutants every third year, but each performance test shall be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury or TSM, you shall conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 mmBtu per hour, you shall conduct annual performance tests for carbon monoxide according to sub. (3). Each annual performance test shall be conducted between 10 and 12 months after the previous performance test.

(f) You shall conduct a fuel analysis according to sub. (4) for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you shall conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You shall still meet all applicable continuous compliance requirements in s. NR 462.06(2).

(g) You shall report the results of performance tests and fuel analyses to the department within 60 days after the completion of the performance tests or fuel analyses. This report shall also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to

sub. (7) and Table 7 of this chapter, as applicable. The reports for all subsequent performance tests and fuel analyses shall include all applicable information required in s. NR 462.07(2).

(3) WHAT PERFORMANCE TESTS AND PROCEDURES MUST I USE? (a) You shall conduct all performance tests according to s. NR 460.06(2), (3), (5) and (7). You shall also develop a site-specific test plan according to the requirements in s. NR 460.06(2) if you elect to demonstrate compliance through performance testing.

(b) You shall conduct each performance test according to the requirements in Table 5 of this chapter.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil shall demonstrate compliance according to s. NR 462.04(2)(a).

(d) You shall conduct each performance test under the specific conditions listed in Tables 5 and 7 of this chapter. You shall conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury and total selected metals, and you shall demonstrate initial compliance and establish your operating limits based on these tests. These requirements may result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown or malfunction.

(f) You shall conduct 3 separate test runs for each performance test required in this subsection, as specified in s. NR 460.06(4)(c). Each test run shall last at least one hour.

(g) To determine compliance with the emission limits, you shall use the F-factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of Appendix A to 40 CFR part 60, incorporated by reference in s. NR 484.04(13), to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates.

(4) WHAT FUEL ANALYSES AND PROCEDURES MUST I USE? (a) You shall conduct fuel analyses according to the procedures in pars. (b) to (e) and Table 6 of this chapter, as applicable.

(b) You shall develop and submit a site-specific fuel analysis plan to the department for review and approval according to the procedures and requirements in subds. 1. and 2.

1. You shall submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.

2. You shall include the information contained in subd. 2.a. to f. in your fuel analysis plan.

a. The identification of all fuel types anticipated to be burned in each boiler or process heater.

b. For each fuel type, notification of whether you or a fuel supplier will be conducting the fuel analysis.

c. For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from those in par. (c) or (d). Where possible, samples should be collected at a location that most accurately represent the fuel type. Samples shall be collected at a point prior to mixing with other dissimilar fuel types.

d. For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine or mercury.

e. If you request to use an alternative analytical method other than those required by Table 6 of this chapter, a detailed description of the methods and procedures that will be used.

f. If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, assurance that the fuel supplier will use the analytical methods required by Table 6 of this chapter.

(c) At a minimum, you shall obtain 3 composite fuel samples for each fuel type according to the procedures in subd. 1. or 2.

1. If sampling from a belt or screw feeder, collect fuel samples according to subd. 1.a. and b.

a. Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum 2 pounds of sample. Collect all the material, including fine and coarse material, in the full cross-section. Transfer the sample to a clean plastic bag.

b. Each composite sample shall consist of a minimum of 3 samples collected at approximately equal intervals during the testing period.

2. If sampling from a fuel pile or truck, collect fuel samples according to subd. 2.a. to c.

a. For each composite sample, select a minimum of 5 sampling locations uniformly spaced over the surface of the pile.

b. At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

c. Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in subds. 1. to 7.

1. Thoroughly mix and pour the entire composite sample over a clean plastic sheet.

2. Break sample pieces larger than 3 inches into smaller sizes.

3. Make a pie shape with the entire composite sample and subdivide it into 4 equal parts.

4. Separate one of the quarter samples as the first subset.

5. If this subset is too large for grinding, repeat the procedure in subd. 3. with the quarter sample and obtain a one-quarter subset from this sample.

6. Grind the sample in a mill.

7. Use the procedure in subd. 3. to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants (mercury, chlorine, and total selected metals) in the fuel in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 of this chapter.

(5) CAN I USE EMISSION AVERAGING TO COMPLY WITH THIS CHAPTER? (a) As an alternative to meeting the requirements of s. NR 462.03(2), if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this subsection.

(b) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged may not exceed the emission level that was being achieved on November 12, 2004, or the control technology employed during the initial compliance test may not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(c) You may average particulate matter or TSM, HCl and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 of this chapter if you satisfy the requirements in pars. (d), (e) and (f).

(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option shall be in compliance with the limits in Table 1 of this chapter at all times following the compliance date specified in s. NR 462.01(5).

(e) You shall demonstrate initial compliance according to subd. 1. or 2.

1. You shall use Equation 1 to demonstrate that the particulate matter or TSM, HCl and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 of this chapter.

$$\text{AWER} = \sum_{i=1}^{n} (\text{Er} \times \text{Hm}) \div \sum_{i=1}^{n} \text{Hm} \qquad \text{(Equation 1)}$$

where:

AWER is the average weighted emission rate for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Er is the emission rate, as calculated according to Table 5 of this chapter, or fuel analysis as calculated by the applicable equation in sub. (7)(d) for boiler, i, for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Hm is the maximum rated heat input capacity of boiler, i, in units of million Btu per hour

n is the number of large solid fuel boilers participating in the emissions averaging option

2. If you are not capable of monitoring heat input, you may use Equation 2 as an alternative to using Equation 1 to demonstrate that the particulate matter or TSM, HCl and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 of this chapter.

$$\text{AWER} = \sum_{i=1}^{n} (\text{Er} \times \text{Sm} \times \text{Cf}) \div \sum_{i=1}^{n} \text{Sm} \times \text{Cf} \qquad \text{(Equation 2)}$$

where:

AWER is the average weighted emission rate for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Er is the emission rate, as calculated according to Table 5 of this chapter, or fuel analysis as calculated by the applicable equation in sub. (7)(d) for boiler, i, for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Sm is the maximum steam generation by boiler, i, in units of pounds.

Cf is the conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated

n is the number of large solid fuel boilers participating in the emissions averaging option

(f) You shall demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to subds. 1. and 2. The first 12-month rolling-average period begins on the compliance date specified in s. NR 462.01(5).

1. For each calendar month, you shall use Equation 3 to calculate the 12-month rolling average weighted emission rate using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$AWER = \sum_{i=1}^{n} (Er \times Hb) \div \sum_{i=1}^{n} Hb \qquad \text{(Equation 3)}$$

where:

AWER is the 12-month rolling average weighted emission rate for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Er is the emission rate, as calculated during the most recent compliance test according to Table 5 of this chapter, or fuel analysis as calculated by the applicable equation in sub. (7)(d) for boiler, i, for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Hb is the average heat input for each calendar month of boiler, i, in units of million Btu

n is the number of large solid fuel boilers participating in the emissions averaging option

2. If you are not capable of monitoring heat input, you may use Equation 4 as an alternative to using Equation 3 to calculate the 12-month rolling average weighted emission rate using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$AWER = \sum_{i-1}^{n} (Er \times Sa \times Cf) \div \sum_{i=1}^{n} Sa \times Cf \qquad \text{(Equation 4)}$$

where:

AWER is the 12-month rolling average weighted emission rate for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Er is the emission rate, as calculated during the most recent compliance test according to Table 5 of this chapter, or fuel analysis as calculated by the applicable equation in sub. (7)(d) for boiler, i, for particulate matter or TSM, HCl or mercury, in units of pounds per million Btu of heat input

Sa is the actual steam generation for each calendar month by boiler, i, in units of pounds

Cf is the conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated

n is the number of large solid fuel boilers participating in the emissions averaging option

(g) You shall develop and submit an implementation plan for emission averaging to the department for review and approval according to the procedures and requirements in subds. 1. to 4.

1. You shall submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

2. You shall include the information required in subd. 2.a. to g. in your implementation plan for all emission sources included in an emission averaging group.

a. The identification of all existing large solid fuel boilers in the averaging group, including for each boiler either the applicable HAP emission level or the installed control technology.

b. The process parameter, either heat input or steam generated, that will be monitored for each averaging group of large solid fuel boilers.

c. The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator shall identify each source.

d. The test plan for the measurement of particulate matter or TSM, HCl or mercury emissions in accordance with the requirements in sub. (3).

e. The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined.

f. If you request to monitor one or more alternative operating parameters pursuant to sub. (6), a description of the parameter or parameters to be monitored, an explanation of the criteria used to select the parameter or parameters and a description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device. You shall also include the frequency and content of monitoring, reporting and recordkeeping requirements and a demonstration, to the satisfaction of the department, that the proposed monitoring frequency is sufficient to represent control device operating conditions.

g. A demonstration that compliance with each of the applicable emission limits will be achieved under representative operating conditions.

3. Upon receipt, the department shall review and approve or disapprove the plan according to both of the following criteria:

a. Whether the content of the plan includes all of the information specified in subd. 2.

b. Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

4. The department may not approve an emission averaging implementation plan containing any of the following provisions:

a. Any averaging between emissions of differing pollutants or between differing sources.

b. The inclusion of any emission source other than an existing large solid fuel boiler.

(6) WHAT ARE MY MONITORING, INSTALLATION, OPERATION AND MAINTENANCE REQUIREMENTS? (a) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 mmBtu per hour or greater, you shall install, operate and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in subds. 1. to 6. by the compliance date specified in s. NR 462.01(5).

1. Each CEMS shall be installed, operated and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, Appendix B, incorporated by reference in s. NR 484.04(21), and according to the site-specific monitoring plan developed according to s. NR 462.04(1)(d).

2. You shall conduct a performance evaluation of each CEMS according to the requirements in s. NR 460.07 and according to PS 4A of 40 CFR part 60, Appendix B, incorporated by reference in s. NR 484.04(21).

3. Each CEMS shall complete a minimum of one cycle of operation, which includes sampling, analyzing and data recording, for each successive 15-minute period.

4. The CEMS data shall be reduced as specified in s. NR 460.07(7)(b).

5. You shall calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

6. For purposes of calculating data averages, you may not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities or when your boiler or process heater is operating at less than 50% of its rated capacity. You shall use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you shall install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in subds. 1. to 7. by the compliance date specified in s. NR 462.01(5).

1. Each COMS shall be installed, operated and maintained according to PS 1 of 40 CFR part 60, Appendix B, incorporated by reference in s. NR 484.04(21).

2. You shall conduct a performance evaluation of each COMS according to the requirements in s. NR 460.07 and according to PS 1 of 40 CFR part 60, Appendix B, incorporated by reference in s. NR 484.04(21).

3. As specified in s. NR 460.07(3)(d)1., each COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

4. The COMS data shall be reduced as specified in s. NR 460.07(7)(b).

5. You shall include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in s. NR 460.07(4). At a minimum, the monitoring plan shall include a daily calibration drift assessment, a quarterly performance audit and an annual zero alignment audit of each COMS.

6. You shall operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of s. NR 460.07(5). Identify periods the COMS is out of control, including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit or an annual zero alignment audit.

7. You shall determine and record all the 6-minute averages, and one-hour block averages, as applicable, collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you shall install, operate and maintain each continuous parameter monitoring system (CPMS) according to the procedures in subds. 1. to 5. by the compliance date specified in s. NR 462.01(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 successive cycles of operation to have a valid hour of data.

2. Except for monitoring malfunctions, associated repairs and required quality assurance or control activities, including, as applicable, calibration checks and required zero and span adjustments, you shall conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

3. For purposes of calculating data averages, you may not use data recorded during monitoring malfunctions, associated repairs, out of control periods or required quality assurance or control activities. You shall use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

4. Determine the 3-hour block average of all recorded readings, except as provided in subd. 3.

5. Record the results of each inspection, calibration and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you shall meet the requirements in par. (c) and subds. 1. to 4.

1. Locate the flow sensor and other necessary equipment in a position that provides a representative measurement of the flow.

2. Use a flow sensor with a measurement sensitivity of 2% of the flow rate.

3. Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

4. Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you shall meet the requirements in par. (c) and subds. 1. to 6.

1. Locate the pressure sensor in a position that provides a representative measurement of the pressure.

2. Minimize or eliminate pulsating pressure, vibration and internal and external corrosion.

3. Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of one percent of the pressure range.

4. Check pressure tap for blockages or plugging daily.

5. Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

6. Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you shall meet the requirements in par. (c) and subds. 1. to 3.

1. Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

2. Ensure that the sample is properly mixed and representative of the fluid to be measured.

3. Check the pH meter's calibration on at least 2 points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current, or total power input, of an electrostatic precipitator (ESP), you shall use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate, such as a weigh belt, weigh hopper or hopper flow measurement device, you shall meet the requirements in par. (c) and subds. 1. to 3.

1. Locate the device in a position that provides a representative measurement of the total sorbent injection rate.

2. Install and calibrate the device in accordance with manufacturer's procedures and specifications.

3. At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this chapter, you shall install, calibrate, maintain and continuously operate a bag leak detection system as specified in subds. 1. to 8.

1. You shall install and operate a bag leak detection system for each exhaust stack of the fabric filter.

2. Each bag leak detection system shall be installed, operated, calibrated and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997, incorporated by reference in s. NR 484.06(4)(c).

3. The bag leak detection system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

4. The bag leak detection system sensor shall provide output of relative or absolute particulate matter loadings.

5. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

6. The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

7. For positive pressure fabric filter systems that do not duct all compartments or cells to a common stack, a bag leak detection system shall be installed in each baghouse compartment or cell.

8. Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

(7) HOW DO I DEMONSTRATE INITIAL COMPLIANCE WITH THE EMISSION LIMITS AND WORK PRACTICE STANDARDS? (a) You shall demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to sub. (3)(c) and Tables 5 and 7 of this chapter OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to sub. (4)(d) and Tables 6 and 8 of this chapter.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil shall demonstrate compliance according to s. NR 462.04(2)(a).

(c) If you demonstrate compliance through performance testing, you shall establish each site-specific operating limit in Tables 2 to 4 of this chapter that applies to you according to the requirements in sub. (3), Table 7 of this chapter, and subd. 4., as applicable. You shall also conduct fuel analyses according to sub. (4) and establish maximum fuel pollutant input levels according to subds. 1. to 3., as applicable.

1. You shall establish the maximum chlorine fuel input (C_{input}) during the initial performance testing according to the procedures in subd. 1.a. to c.

a. You shall determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

b. During the performance testing for HCl, you shall determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine and the average chlorine concentration of each fuel type burned (C_i).

c. You shall establish a maximum chlorine input level using Equation 5.

$$C_{input} = \sum_{i=1}^{n} [(C_i)(Q_i)] \qquad \text{(Equation 5)}$$

where:

C_{input} is the maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu

C_i is the arithmetic average concentration of chlorine in fuel type, i, analyzed according to sub. (4), in units of pounds per million Btu

Q_i is the fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n is the number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine

2. If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you shall establish the maximum TSM fuel input level (TSM_{input}) during the initial performance testing according to the procedures in subd. 2.a. to c.

a. You shall determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

b. During the performance testing for TSM, you shall determine the fraction of total heat input from each fuel burned (Q_i) based on the fuel mixture that has the highest content of total selected metals and the average TSM concentration of each fuel type burned (M_i).

c. You shall establish a baseline TSM input level using Equation 6.

$$TSM_{input} = \sum_{i=1}^{n} [(M_i)(Q_i)] \qquad \text{(Equation 6)}$$

where:

TSM_{input} is the maximum amount of TSM entering the boiler or process heater through fuels burned, in units of pounds per million Btu

M_i is the arithmetic average concentration of TSM in fuel type, i, analyzed according to sub. (4), in units of pounds per million Btu

Q_i is the fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n is the number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM

3. You shall establish the maximum mercury fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures in subd. 3.a. to c.

a. You shall determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

b. During the compliance demonstration for mercury, you shall determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and you shall determine the average mercury concentration of each fuel type burned (HGi).

c. You shall establish a maximum mercury input level using Equation 7.

$$Mercury_{input} = \sum_{i=1}^{n} [(HG_i)(Q_i)] \qquad \text{(Equation 7)}$$

where:

$Mercury_{input}$ is the maximum amount of mercury entering the boiler or process heater through fuels burned, in units of pounds per million Btu

HG_i is the arithmetic average concentration of mercury in fuel type, i, analyzed according to sub. (4), in units of pounds per million Btu

Q_i is the fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n is the number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury

4. You shall establish parameter operating limits according to subd. 4.a. to d.

a. For a wet scrubber, you shall establish the minimum scrubber effluent pH, liquid flow rate and pressure drop, as defined in s. NR 462.02 (32) to (34), as your operating limits during the 3-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl and mercury emissions, you shall establish one set of minimum scrubber effluent pH, liquid flow rate and pressure drop operating limits. The minimum scrubber effluent pH operating limit shall be established during the HCl performance test. If you conduct multiple performance tests, you shall set the minimum liquid flow rate and pressure drop operating limits at the highest minimum values established during the performance tests.

b. For an electrostatic precipitator, you shall establish the minimum voltage and the minimum secondary current or the minimum total power input, as defined in s. NR 462.02(36), as your operating limits during the 3-run performance test.

c. For a dry scrubber, you shall establish the minimum sorbent injection rate, as defined in s. NR 462.02(34), as your operating limit during the 3-run performance test.

d. The operating limit for boilers or process heaters with fabric filters for which you choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in sub. (6), and that each fabric filter shall be operated such that the bag leak detection system alarm does not sound more than 5% of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you shall conduct fuel analyses according to sub. (4) and follow the procedures in subds. 1. to 5.

1. If you burn more than one fuel type, you shall determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants for which you elect to demonstrate compliance through fuel analysis.

2. You shall determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8.

$$P_{90} = \text{mean} + (\text{SD} \times t) \qquad \text{(Equation 8)}$$

where:

P_{90} is the 90th percentile confidence level pollutant concentration, in pounds per million Btu

mean is the arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to sub. (4), in units of pounds per million Btu

SD is the standard deviation of the pollutant concentration in the fuel samples analyzed according to sub. (4), in units of pounds per million Btu

t is the t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table

3. To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 shall be less than the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n} [(C_{i90})(Q_i)(1.028)] \qquad \text{(Equation 9)}$$

where:

HCl is the HCl emission rate from the boiler or process heater in units of pounds per million Btu

C_{i90} is the 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8

Q_i is the fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n is the number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine

1.028 is the molecular weight ratio of HCl to chlorine

4. To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 shall be less than the applicable emission limit for TSM.

$$TSM = \sum_{i=1}^{n} [(M_{i90})(Q_i)] \qquad \text{(Equation 10)}$$

where:

TSM is the TSM emission rate from the boiler or process heater in units of pounds per million Btu

M_{i90} is the 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8

Q_i is the fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n is the number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM

5. To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 shall be less than the applicable emission limit for mercury.

$$\text{Mercury} = \sum_{i=1}^{n} [(HG_{i90})(Q_i)] \qquad \text{(Equation 11)}$$

where:

Mercury is the mercury emission rate from the boiler or process heater in units of pounds per million Btu

HG_{i90} is the 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8

Q_i is the fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Q_i.

n is the number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content

(e) You shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in s. NR 462.07(1)(e).

NR 462.06 Continuous compliance requirements. (1) HOW DO I MONITOR AND COLLECT DATA TO DEMONSTRATE CONTINUOUS COMPLIANCE? (a) You shall monitor and collect data according to the requirements of this section and the site-specific monitoring plan required by s. NR 462.04(1)(d).

(b) Except for monitor malfunctions, associated repairs and required quality assurance or control activities, including, as applicable, calibration checks and required zero and span adjustments, you shall monitor continuously, or collect data at all required intervals, at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS may not use data recorded during periods when the boiler or process heater is operating at less than 50% of its rated capacity.

(2) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE WITH THE EMISSION LIMITS AND WORK PRACTICE STANDARDS? (a) You shall demonstrate continuous compliance with each emission limit, operating limit and work practice standard in Tables 1 to 4 of this chapter that applies to you according to the methods specified in Table 8 of this chapter and subds. 1. to 10.

1. Following the date on which the initial performance test is completed or is required to be completed under ss. NR 460.06 and 462.05(1), whichever date comes first, you may not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 to 4 of this chapter at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

2. You shall keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl and mercury than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis, or result in lower fuel input of TSM, chlorine and mercury than the maximum values calculated during the last performance tests, if you demonstrate compliance through performance testing.

3. If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you shall recalculate the HCl emission rate using Equation 9 of s. NR 462.05(7) according to subd. 3.a. to c.

a. You shall determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to s. NR 462.05(4)(b).

b. You shall determine the new mixture of fuels that will have the highest content of chlorine.

c. Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of s. NR 462.05(7). The recalculated HCl emission rate shall be less than the applicable emission limit.

4. If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you shall recalculate the maximum chlorine input using Equation 5 of s. NR 462.05(7). If the results of recalculating the maximum chlorine input are higher than the maximum chlorine input level established during the previous performance test, then you shall conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in s. NR 462.05(3) to demonstrate that the HCl emissions do not exceed the emission limit. You shall also establish new operating limits based on this performance test according to the procedures in s. NR 462.05(7)(c).

5. If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you shall recalculate the TSM emission rate using Equation 10 of s. NR 462.05(7) according to the procedures specified in subd. 5.a. to c.

a. You shall determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to s. NR 462.05(4)(b).

b. You shall determine the new mixture of fuels that will have the highest content of TSM.

c. Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of s. NR 462.05(7). The recalculated TSM emission rate shall be less than the applicable emission limit.

6. If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you shall recalculate the maximum TSM input using Equation 6 of s. NR 462.05(7). If the results of recalculating the maximum total selected metals input are higher than the maximum TSM input level established during the previous performance test, then you shall conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in s. NR 462.05(3) to demonstrate that the TSM emissions do not exceed the emission limit. You shall also establish new operating limits based on this performance test according to the procedures in s. NR 462.05(7)(c).

7. If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you shall recalculate the mercury emission rate using Equation 11 of s. NR 462.05(7) according to the procedures specified in subd. 7.a. to c.

a. You shall determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to s. NR 462.05(4)(b).

b. You shall determine the new mixture of fuels that will have the highest content of mercury.

c. Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of s. NR 462.05(7). The recalculated mercury emission rate shall be less than the applicable emission limit.

8. If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you shall recalculate the maximum mercury input using Equation 7 of s. NR 462.05(7). If the results of recalculating the maximum mercury input are higher than the maximum mercury input level established during the previous performance test, then you shall conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in s. NR 462.05(3) to demonstrate that the mercury emissions do not exceed the emission limit. You shall also establish new operating limits based on this performance test according to the procedures in s. NR 462.05(7)(c).

9. If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you shall initiate corrective action within one hour of a bag leak detection system alarm and complete corrective actions according to your SSMP and operate and maintain the fabric filter system such that the alarm does not sound more than 5% of the operating time during a 6-month period. You shall also keep records of the date, time and duration of each alarm, the time corrective action was initiated and completed and a brief description of the cause of the alarm and the corrective action taken. You shall also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of one hour. If you take longer than one hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

10. If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to s. NR 462.05(6)(a), then you shall meet the requirements in subd. 10.a. to c.

a. You shall continuously monitor carbon monoxide according to s. NR 462.05(6)(a) and sub. (1).

b. Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 of this chapter at all times except during periods of startup, shutdown, malfunction and when your boiler or process heater is operating at less than 50% of rated capacity.

c. Keep records of carbon monoxide levels according to s. NR 462.07(3)(b).

(b) You shall report each instance in which you did not meet each emission limit, operating limit and work practice standard in Tables 1 to 4 of this chapter that applies to you. You shall also report each instance during a startup, shutdown or malfunction when you did not meet each applicable emission limit, operating limit and work practice standard. These instances are deviations from the emission limits and work practice standards in this chapter. These deviations shall be reported according to the requirements in s. NR 462.07(2).

(c) During periods of startup, shutdown and malfunction, you shall operate in accordance with the SSMP as required in s. NR 462.04(1)(e).

(d) Consistent with ss. NR 460.05(4) and 460.06(4)(a), deviations that occur during a period of startup, shutdown or malfunction are not violations if you demonstrate to the department's satisfaction that you were operating in accordance with your SSMP. The department will determine whether deviations that occur during a period of startup, shutdown or malfunction are violations, according to the provisions in s. NR 460.05(4).

(3) HOW DO I DEMONSTRATE CONTINUOUS COMPLIANCE UNDER THE EMISSION AVERAGING PROVISIONS? (a) Following the compliance date, an owner or operator following the emission averaging provisions shall demonstrate compliance with this chapter on a continuous basis by meeting all the requirements of subds. 1. to 4.

1. For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in s. NR 462.05(5)(f) and (g).

2. For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit.

3. For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test.

4. For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in par. (a), except during periods of startup, shutdown and malfunction, is a deviation.

NR 462.07 Notifications, reports and records. (1) WHAT NOTIFICATIONS MUST I SUBMIT AND WHEN? (a) You shall submit all of the notifications in ss. NR 460.06(2), 460.07(5), (6)(c) and (e) and 460.08(2) to (8) that apply to you by the dates specified.

(b) As specified in s. NR 460.08(2)(b), if you start up your affected source before November 12, 2004, you shall submit an initial notification not later than 120 days after November 12, 2004. The initial notification shall include the information required in subds. 1. and 2., as applicable.

1. If your affected source has an annual capacity factor of greater than 10%, your initial notification shall include the information required by s. NR 460.08(2)(b).

2. If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10% such that the unit is in one of the limited use subcategories, as defined in s. NR 462.02(26) to (28), your initial notification shall include the information required by s. NR 460.08(2)(b), and a signed statement indicating that your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10%.

(c) As specified in s. NR 460.08(2)(d) and (e), if you start up your new or reconstructed affected source on or after November 12, 2004, you shall submit an initial notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test, you shall submit a notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in s. NR 462.05(7)(a), you shall submit a notification of compliance status according to s. NR 460.08(8)(b)2. For each initial compliance demonstration, you shall submit the notification of compliance status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and other initial compliance demonstrations according to s. NR 460.09(4)(b). The notification of compliance status report shall contain all the information specified in subds. 1. to 9., as applicable.

1. A description of the affected source, including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source, a description of the fuels burned and justification for the fuels burned during the performance test.

2. A summary of the results of all performance tests, fuel analyses and calculations conducted to demonstrate initial compliance, including all established operating limits.

3. Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.

4. Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.

5. Identification of whether you plan to demonstrate compliance by emissions averaging.

6. A signed certification that you have met all applicable emission limits and work practice standards.

7. A summary of carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 of this chapter.

8. If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you shall submit a signed statement certifying this in your notification of compliance status report.

9. If you had a deviation from any emission limit or work practice standard, you shall also submit a description of the deviation, the duration of the deviation and the corrective action taken in the notification of compliance status report.

(2) WHAT REPORTS MUST I SUBMIT AND WHEN? (a) You shall submit each report in Table 9 of this chapter that applies to you.

(b) Unless the department has approved a different schedule for submission of reports under s. NR 460.09(1), you shall submit each report by the date in Table 9 of this chapter and according to the requirements in subds. 1. to 5.

1. The first compliance report shall cover the period beginning on the compliance date that is specified for your affected source in s. NR 462.01(5) and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date specified for your source in s. NR 462.01(5) .

2. The first 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 first calendar half after the compliance date that is specified for your source in s. NR 462.01(5).

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

4. Each subsequent 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.

5. For each affected source that is subject to permitting regulations pursuant to ch. NR 407 or 40 CFR part 71, and if the department has established dates for submitting semiannual reports pursuant to s. NR 407.09(1)(c)3.a. or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the department has established instead of according to the dates in subds. 1. to 4.

(c) The compliance report shall contain the information required in subds. 1. to 11.

1. Company name and address.

2. A 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.

4. The total fuel use by each affected source subject to an emission limit for each calendar month within the semiannual reporting period, including a description of the fuel and the total amount of fuel used with units of measure.

5. A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

6. A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you shall do all of the following:

a. For sources that demonstrate compliance through performance testing, submit the calculation of chlorine input, using Equation 5 of s. NR 462.05(7), that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing. For boilers or process heaters that demonstrate compliance through fuel analysis, submit the calculation of HCl emission rate, using Equation 9 of s. NR 462.05(7), that demonstrates that your source is still meeting the emission limit for HCl emissions.

b. For sources that demonstrate compliance through performance testing, submit the calculation of TSM input, using Equation 6 of s. NR 462.05(7), that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing. For boilers or process heaters that demonstrate compliance through fuel analysis, submit the calculation of TSM emission rate using Equation 10 of s. NR 462.05(7) that demonstrates that your source is still meeting the emission limit for TSM emissions.

c. For sources that demonstrate compliance through performance testing, submit the calculation of mercury input, using Equation 7 of s. NR 462.05(7), that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing. For boilers or process heaters that demonstrate compliance through fuel analysis, submit the calculation of mercury emission rate using Equation 11 of s. NR 462.05(7) that demonstrates that your source is still meeting the emission limit for mercury emissions.

7. If you wish to burn a new type of fuel, and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of s. NR 462.05(7), the maximum TSM input operating limit using Equation 6 of s. NR 462.05(7) or the maximum mercury input operating limit using Equation 7 of s. NR 462.05(7), a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

8. The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

9. If you had a startup, shutdown or malfunction during the reporting period, and you took actions consistent with your SSMP, the information in s. NR 460.09(4)(e)1.

10. If there are no deviations from any emission limits or operating limits in this chapter that apply to you, and there are no deviations from the requirements for work practice standards in this chapter, a statement that there were no deviations from the emission limits, operating limits or work practice standards during the reporting period.

11. If there were no periods during which the continuous monitoring systems (CMS), including CEMS, COMS and CPMS, were out of control as specified in s. NR 460.07(3)(g), a statement that there were no periods during which the CMS were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this chapter and for each deviation from the requirements for work practice standards in this chapter that occurs at an affected source where you are not using a CMS to comply with that emission limit, operating limit or work practice standard, the compliance report shall contain the information in par. (c)1. to 10. and the information in subds. 1. to 4. This includes periods of startup, shutdown and malfunction.

1. The total operating time of each affected source during the reporting period.

2. A description of the deviation and which emission limit, operating limit or work practice standard from which you deviated.

3. Information on the number, duration and cause of deviations, including unknown cause, as applicable, and the corrective action taken.

4. A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation, operating limit or work practice standard in this chapter occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit or work

practice standard, you shall include the information in par. (c) 1. to 10. and the information required in subds. 1. to 12. This includes periods of startup, shutdown and malfunction and any deviations from your site-specific monitoring plan as required in s. NR 462.04(1)(d).

1. The date and time that each malfunction started and stopped and a description of the nature of the deviation, i.e., what you deviated from.

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

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

4. The date and time that each deviation started and stopped and whether each deviation occurred during a period of startup, shutdown or malfunction or during another period.

5. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

6. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes and other unknown causes.

7. A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

8. An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide and operating parameters for wet scrubbers and other control devices.

9. A brief description of each source which experienced a deviation.

10. A brief description of each CMS which experienced a deviation.

11. The date of the latest CMS certification or audit for each system which experienced a deviation.

12. A description of any changes in continuous monitoring systems, processes or controls since the last reporting period for each source which experienced a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to ch. NR 407 or 40 CFR part 71 shall report all deviations as defined in this chapter in the semiannual monitoring report required by s. NR 407.09(1)(c)3.a. or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 of this chapter along with, or as part of, the semiannual monitoring report required by s. NR 407.09(1)(c)3.a. or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit or work practice standard in this chapter, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance

report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the department.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 of this chapter, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you shall submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in s. NR 462.02(40). The notification shall include the information specified in subds. 1. to 5.

1. Company name and address.

2. Identification of the affected unit.

3. Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

4. Type of alternative fuel that you intend to use.

5. Dates when the alternative fuel use is expected to begin and end.

(3) WHAT RECORDS MUST I KEEP? (a) You shall keep records according to subds. 1. to 3.

1. A copy of each notification and report that you submitted to comply with this chapter, including all documentation supporting any initial notification or notification of compliance status or semiannual compliance report that you submitted, according to the requirements in s. NR 460.09(2)(b)14.

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

3. Records of performance tests, fuel analyses or other compliance demonstrations, performance evaluations and opacity observations as required in s. NR 460.09(2)(b)8.

(b) For each CEMS, CPMS and COMS, you shall keep records according to subds. 1. to 5.

1. Records described in s. NR 460.09(2)(b)6. to 11.

2. Monitoring data for a continuous opacity monitoring system during a performance evaluation as required in s. NR 460.05(6)(f)1. and 2.

3. Previous, i.e., superseded, versions of the performance evaluation plan as required in s. NR 460.07(4)(c).

4. Request for alternatives to relative accuracy test for CEMS as required in s. NR 460.07(6)(e)1.

5. Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown or malfunction or during another period.

(c) You shall keep the records required in Table 8 of this chapter, including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, carbon monoxide and pH, to show continuous compliance with each emission limit, operating limit and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit you shall also keep the records in subds. 1. to 5.

1. Monthly fuel use by each boiler or process heater, including the types of fuel and amounts used.

2. For limited-use boilers and process heaters, monthly hours of operation by each boiler or process heater.

3. For sources that demonstrate compliance through performance testing, a copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of s. NR 462.05(7), that were done to demonstrate continuous compliance with the HCl emission limit. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of s. NR 462.05(7), that were done to demonstrate compliance with the HCl emission limit. Supporting documentation shall include the results of any fuel analyses and the basis for the estimates of maximum chlorine fuel input or HCl emission rates. You may use the results from one fuel analysis for multiple boilers and process heaters, provided they are all burning the same fuel type. However, you shall calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

4. For sources that demonstrate compliance through performance testing, a copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of s. NR 462.05(7), that were done to demonstrate continuous compliance with the TSM emission limit. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of s. NR 462.05(7), that were done to demonstrate compliance with the TSM emission limit. Supporting documentation shall include the results of any fuel analyses and the basis for the estimates of maximum TSM fuel input or TSM emission rates. You may use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you shall calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

5. For sources that demonstrate compliance through performance testing, a copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 s. NR 462.05(7), that were done to demonstrate continuous compliance with the mercury emission limit. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of s. NR 462.05(7), that were done to demonstrate compliance with the mercury emission limit. Supporting documentation shall include the results of any fuel analyses and the basis for the estimates of maximum mercury fuel input or mercury emission rates. You may use the results from one fuel analysis for multiple boilers and process

heaters, provided they are all burning the same fuel type. However, you shall calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 of this chapter and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10% such that the unit is in one of the limited use subcategories, you shall keep the records in subds. 1. and 2.

1. A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10%.

2. Fuel use records for the days the boiler or process heater was operating.

(4) IN WHAT FORM AND 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).

(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.

(5) WHO IMPLEMENTS AND ENFORCES THIS CHAPTER? EPA has delegated authority to the department to implement and enforce this chapter, but EPA retains oversight and can take enforcement actions, as appropriate.

Note: The authorities listed in s. NR 462.03(2)(a) and (b) and in 40 CFR 63.7570(b)(1) to (5) are retained by the administrator and are not transferred to the department.

Table 1 - Emission Limits and Work Practice Standards

As stated in s. NR 462.03(2), you shall comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory…	For the following pollutants…	You shall meet the following emission limits and work practice standards…
1. New or reconstructed large solid fuel	a. Particulate matter (or total selected metals) b. Hydrogen chloride c. Mercury d. Carbon monoxide	0.025 lb per mmBtu of heat input, (or 0.0003 lb per mmBtu of heat input). 0.02 lb per mmBtu of heat input. 0.000003 lb per mmBtu of heat input. 400 ppm by volume on a dry basis corrected to 7% oxygen (30-day rolling average for units 100 mmBtu /hr or greater, 3-run average for units less than 100 mmBtu /hr).
2. New or reconstructed limited use solid fuel	a. Particulate matter (or total selected metals) b. Hydrogen chloride c. Mercury d. Carbon monoxide	0.025 lb per mmBtu of heat input, (or 0.0003 lb per mmBtu of heat input). 0.02 lb per mmBtu of heat input. 0.000003 lb per mmBtu of heat input. 400 ppm by volume on a dry basis corrected to 7% oxygen (3-run average).
3. New or reconstructed small solid fuel	a. Particulate matter (or total selected metals) b. Hydrogen chloride c. Mercury	0.025 lb per mmBtu pf heat input, (or 0.0003 lb per mmBtu of heat input). 0.02 lb per mmBtu of heat input. 0.000003 lb per mmBtu of heat input.
4. New reconstructed large liquid fuel	a. Particulate matter b. Hydrogen chloride c. Carbon monoxide	0.03 lb per mmBtu of heat input. 0.0005 lb per mmBtu of heat input. 400 ppm by volume on a dry basis corrected to 3% oxygen (30-day rolling average for units 100 mmBtu /hr or greater, 3-run average for units less than 100 mmBtu /hr).
5. New or reconstructed limited use liquid fuel.	a. Particulate matter b. Hydrogen chloride c. Carbon monoxide	0.03 lb per mmBtu of heat input. 0.0009 lb per mmBtu of heat input. 400 ppm by volume on a dry basis liquid corrected to 3% oxygen (3-run average).
6. New or reconstructed small liquid fuel	a. Particulate matter b. Hydrogen chloride	0.03 lb per mmBtu of heat input. 0.0009 lb per mmBtu of heat input.
7. New reconstructed large gaseous fuel	Carbon monoxide	400 ppm by volume on a dry basis corrected to 3% oxygen (30-day rolling average for units 100 mmBtu /hr or greater, 3-run average for units less than 100 mmBtu /hr).
8. New or reconstructed limited use gaseous fuel.	Carbon monoxide	400 ppm by volume on a dry basis corrected to 3% oxygen (3-run average).
9. Existing large solid fuel	a. Particulate matter (or total selected metals) b. Hydrogen chloride c. Mercury	0.07 lb per mmBtu of heat input, (or 0.001 lb per mmBtu of heat input). 0.09 lb per mmBtu of heat input. 0.000009 lb per mmBtu of heat input.
10. Existing limited use solid fuel	Particulate matter (or total selected metals)	0.21 lb per mmBtu of heat input, (or 0.004 lb per mmBtu of heat input).

Table 2
Operating Limits for Boilers and Process Heaters With Particulate Matter Emission Limits

As stated in s. NR 462.03(2), you shall comply with the applicable operating limits.

If you demonstrate compliance with applicable particulate matter emission limits using…	You shall meet these operating limits…
1. Wet scrubber control	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established according to s. NR 462.05(7)(c) and Table 7 of this chapter during the performance test that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control	a. Install and operate a bag leak detection system according to s. NR 462.05(6) and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5% of the operating time during each 6-month period; or b. For boilers and process heaters that operate dry control systems, existing boilers and process heaters shall maintain opacity at or below 20% (6-minute average) except for one 6-minute period per hour of not more than 27%. New boilers and process heaters shall maintain opacity at or below 10% (one hour block average).
3. Electrostatic precipitator control	a. For boilers and process heaters that operate dry control systems, existing boilers and process heaters shall maintain opacity at or below 20% (6-minute average) except for one 6-minute period per hour of not more than 27%. New boilers and process heaters shall maintain opacity at or below 10% (one hour block average); or b. For boilers and process heaters that operate additional wet control systems, maintain the minimum voltage and the minimum secondary current or the minimum total power input of the electrostatic precipitator at or above the operating limits established according to s. NR 462.05(7)(c) and Table 7 of this chapter during the performance test that demonstrated compliance with the applicable emission limit for particulate matter.
4. Any other control type	For boilers and process heaters that operate dry control systems, existing boilers and process heaters shall maintain opacity at or below 20% (6-minute average) except for one 6-minute period per hour of not more than 27%. New boilers and process heaters shall maintain opacity at or below 10% opacity (one hour block average).

Table 3
Operating Limits for Boilers and Process Heaters With Mercury Emission Limits and Boilers and Process Heaters That Choose To Comply With the Alternative Total Selected Metals Emission Limits

As stated in s. NR 462.03(2), you shall comply with the applicable operating limits.

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using…	You shall meet these operating limits…
1. Wet scrubber control	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established according to s. NR 462.05(7)(c) and Table 7 of this chapter during the performance test that demonstrated compliance with the applicable emission limits for mercury or total selected metals or both.
2. Fabric filter control	a. Install and operate a bag leak detection system according to s. NR 462.05(6) and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5% of the operating time during a 6-month period; or b. For boilers and process heaters that operate dry control systems, existing sources shall maintain opacity at or below 20% (6-minute average) except for one 6-minute period per hour of not more than 27%. New sources shall maintain opacity at or below 10% (one hour block average).
3. Electrostatic precipitator control	a. For boilers and process heaters that operate dry control systems, existing sources shall maintain opacity at or below 20% (6-minute average) except for one 6-minute period per hour of not more than 27%. New sources shall maintain opacity at or below 10% (one hour block average); or b. For boilers and process heaters that operate additional wet control systems, maintain the minimum voltage and the minimum secondary current or the minimum total power input of the electrostatic precipitator at or above the operating limits established according to s. NR 462.05(7)(c) and Table 7 of this chapter during the performance test that demonstrated compliance with the applicable emission limits for mercury or total selected metals or both.
4. Dry scrubber or carbon injection control	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established according to s. NR 462.05(7)(c) and Table 7 of this chapter during the performance test that demonstrated compliance with the applicable emission limit for mercury.
5. Any other control type	For boilers and process heaters that operate dry control systems, existing sources shall maintain opacity at or below 20% (6-minute average) except for one 6-minute period per hour of not more than 27%. New sources shall maintain opacity at or below 10% (one hour block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture such that the emission rate for mercury or total selected metals or both calculated according to s. NR 462.05(7)(d)4. or 5. or both are less than the applicable emission limits for mercury or total selected metals or both.

Table 4
Operating Limits for Boilers and Process Heaters With Hydrogen Chloride Emission Limits

As stated in s. NR 462.03(2), you shall comply with the following applicable operating limits:

If you demonstrate compliance with applicable hydrogen chloride emission limits using…	You shall meet these operating limits…
1. Wet scrubber control	Maintain the minimum scrubber effluent pH, pressure drop and liquid flow-rate at or above the operating levels established according to s. NR 462.05(7)(c) and Table 7 of this chapter during the performance test that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control	Maintain the minimum sorbent injection rate at or above the operating levels established according to s. NR 462.05(7)(c) and Table 7 of this chapter during the performance test that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to s. NR 462.05(7)(d)3. is less than the applicable emission limit for hydrogen chloride.

Table 5
Performance Testing Requirements

As stated in s. NR 462.05(3), you shall comply with the following requirements for performance testing for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant…	You shall…	Using…[a]
1. Particulate matter	a. Select sampling port locations and the number of traverse points	Method 1 in Appendix A to 40 CFR part 60.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F or 2G in Appendix A to 40 CFR part 60.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in Appendix A to 40 CFR part 60 or ASME PTC 19, Part 10 (1981).
	d. Measure the moisture content of the stack gas	Method 4 in Appendix A to 40 CFR part 60.
	e. Measure the particulate matter emission concentration	Method 5 or 17 (positive pressure fabric filters shall use Method 5D) in Appendix A to 40 CFR part 60.
	f. Convert emissions concentration to lb per mmBtu emission rates	Method 19 F-factor methodology in Appendix A to 40 CFR part 60.
2. Total selected metals	a. Select sampling port locations and the number of traverse points	Method 1 in Appendix A to 40 CFR part 60.
	b. Determine velocity and volumetric flow rate of the stack gas	Method 2, 2F or 2G in Appendix A to 40 CFR part 60.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in Appendix A to 40 CFR part 60 or ASME PTC 19 Part 10 (1981).

To conduct a performance test for the following pollutant…	You shall…	Using…[a]
	d. Measure the moisture content of the stack gas	Method 4 in Appendix A to 40 CFR part 60.
	e. Measure the total selected metals emission concentration	Method 29 in Appendix A to 40 CFR part 60.
	f. Convert emissions concentration to lb per mmBtu emission rates	Method 19 F-factor methodology in Appendix A to 40 CFR part 60.
3. Hydrogen chloride	a. Select sampling port locations and the number of traverse points	Method 1 in Appendix A to 40 CFR part 60.
	b. Determine velocity and volumetric flow rate of the stack gas	Method 2, 2F or 2G in Appendix A to 40 CFR part 60.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in Appendix A to 40 CFR part 60 or ASME PTC 19, Part 10 (1981).
	d. Measure the moisture content of the stack gas	Method 4 in Appendix A to 40 CFR part 60.
	e. Measure the hydrogen chloride emission concentration	Method 26 or 26A in Appendix A to 40 CFR part 60.
	f. Convert emissions concentration to lb per mmBtu emission rates	Method 19 F-factor methodology in Appendix A to 40 CFR part 60.
4. Mercury	a. Select sampling port locations and the number of traverse points	Method 1 in Appendix A to 40 CFR part 60.
	b. Determine velocity and volumetric flow rate of the stack gas	Method 2, 2F or 2G in Appendix A to 40 CFR part 60.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in Appendix A to 40 CFR part 60 or ASME PTC 19, Part 10 (1981).
	d. Measure the moisture content of the stack gas	Method 4 in Appendix A to 40 CFR part 60.
	e. Measure the mercury emission concentration	Method 29 in Appendix A to 40 CFR part 60 or Method 101A in Appendix B to 40 CFR part 61, incorporated by reference in s. NR 484.04(23) or ASTM Method D6784-02.
	f. Convert emissions concentration to lb per mmBtu emission rates	Method 19 F-factor methodology in Appendix A to 40 CFR part 60.
5. Carbon monoxide	a. Select sampling port locations and the number of traverse points	Method 1 in Appendix A to 40 CFR part 60.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in Appendix A to 40 CFR part 60, ASTM D6522-00, or ASME PTC

To conduct a performance test for the following pollutant…	You shall…	Using…[a]
		19, Part 10 (1981).
	c. Measure the moisture content of the stack gas	Method 4 in Appendix A to 40 CFR part 60.
	d. Measure the carbon monoxide emission concentration	Method 10, 10A or 10B in Appendix A to 40 CFR part 60 or ASTM D6522-00 when the fuel is natural gas.

[a] All test methods from Appendix A to 40 CFR part 60 listed in this column are incorporated by reference in s. NR 484.04(13), (15) and (20m), all ASTM standard test methods listed in this column are incorporated by reference in s. NR 484.10., and ASME PTC 19, Part 10 (1981) is incorporated by reference in s. NR 484.11(6)(b).

Table 6
Fuel Analysis Requirements

As stated in s. NR 462.05(4), you shall comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant…	You shall…	Using…[a]
1. Mercury	a. Collect fuel samples	Procedure in s. NR 462.05(4)(c) or ASTM D2234-02 (for coal), or ASTM D6323-98 (2003) (for biomass) or equivalent.
	b. Composite fuel samples	Procedure in s. NR 462.05(4)(d) or equivalent.
	c. Prepare composited fuel samples	SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal), or ASTM D5198-92 (2003) (for biomass) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865-03a (for coal), or ASTM E711-87 (1996) (for biomass) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173-02, or ASTM E871-82 (1998) or equivalent.
	f. Measure mercury concentration in fuel sample	ASTM D3684-01 (for coal), or SW-846-7471A (for solid samples) or SW-846-7470A (for liquid samples).
	g. Convert concentrations into units of pounds of pollutant per mmBtu of heat content.	
2. Total selected metals	a. Collect fuel samples	Procedure in s. NR 462.05(4)(c) or ASTM D2234-02 (for coal), or ASTM D6323-98 (2003) (for

To conduct a fuel analysis for the following pollutant…	You shall…	Using…[a]
		biomass), or equivalent.
	b. Composite fuel samples	Procedure in s. NR 462.05(4)(d) or equivalent.
	c. Prepare composited fuel samples	SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal), or ASTM D5198-92 (2003) (for biomass) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865-03a (for coal) or ASTM E711-87 (1996) (for biomass) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173-02 or ASTM E871-82 (1998) or equivalent.
	f. Measure total selected metals concentration in fuel samples	SW-846-6010B or ASTM D3683-94 (2000) (for coal) or ASTM E885-88 (1996) (for biomass).
	g. Convert concentrations into units of pounds of pollutant per mmBtu of heat content.	
3. Hydrogen chloride	a. Collect fuel samples	Procedure in s. NR 462.05(4)(c) or ASTM D2234-02 (for coal) or ASTM D6323-98 (2003) (for biomass) or equivalent.
	b. Composite fuel samples	Procedure in s. NR 462.05(4)(d) or equivalent.
	c. Prepare composited fuel samples	SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal) or ASTM D5198-92 (2003) (for biomass) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865-03a (for coal) or ASTM E711-87 (1996) (for biomass) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173-02 or ASTM E871-82 (1998) or equivalent.
	f. Measure chlorine content in fuel sample	SW-846-9250 or ASTM E776-87 (1996) (for biomass) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per mmBtu of heat content.	

[a] All ASTM standard test methods in this column are incorporated by reference in s. NR 484.10. All SW-846 test methods in this column are incorporated by reference in s. NR 484.06(4)(d).

Table 7
Establishing Operating Limits

As stated in s. NR 462.05(3), you shall comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for…	And your operating limits are based on…	You shall…	Using…	According to the following requirements…
1. Particulate matter, mercury or total selected metals	a. Wet scrubber operating parameters	Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to s. NR 462.05(7)(c)	Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury or total selected metals performance test.	1. You shall collect pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance tests; 2. Determine the average pressure drop and liquid flow rate for each individual test run in the 3-run performance test by computing the average of all the 15 minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control)	Establish a site-specific minimum voltage and minimum secondary current or minimum total power input according to s. NR 462.05(7)(c)	Data from the voltage and secondary current or total power input monitors and the particulate matter, mercury or total selected metals performance test.	1. You shall collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; 2. Determine the average voltage and secondary current or total power input for each individual test run in the 3-run performance test by computing the average of all the 15-minute readings taken during each test run.
2. Hydrogen chloride	a. Wet scrubber operating parameters	Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to s. NR 462.05(7)(c)	Data from the pH, pressure drop and liquid flow rate monitors and the hydrogen chloride performance test.	1. You shall collect pH, pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance tests;

If you have an applicable emission limit for…	And your operating limits are based on…	You shall…	Using…	According to the following requirements…
				2. Determine the average pH, pressure drop and liquid flow rate for each individual test run in the 3-run performance test by computing the average of all the 15 minute readings taken during each test run.
	b. Dry scrubber operating parameters	Establish a site-specific minimum sorbent injection rate operating limit according to s. NR 462.05(7)(c)	Data from the sorbent injection rate monitors and hydrogen chloride performance test.	1. You shall collect sorbent injection rate data every 15 minutes during the entire period of the performance tests; 2. Determine the average sorbent injection rate for each individual test run in the 3-run performance test by computing the average of all the 15 minute readings taken during each test run.

Table 8
Demonstrating Continuous Compliance

As stated in s. NR 462.06(2), you shall show continuous compliance with the emission limitations for affected sources according to the following:

If you are required to meet the following operating limits or work practice standards…	You shall demonstrate continuous compliance by…
1. Opacity	a. Collecting the opacity monitoring system data according to ss. NR 462.05(6)(b) and 462.06(1); and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining opacity to less than or equal to 20% (6-minute average) except for one 6-minute period per hour of not more than 27% for existing sources; or maintaining opacity to less than or equal to 10% (one hour block average) for new sources.

If you are required to meet the following operating limits or work practice standards…	You shall demonstrate continuous compliance by…
2. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to s. NR 462.05(6) and operating the fabric filter such that the requirements in s. NR 462.06(2)(a)9. are met.
3. Wet Scrubber Pressure Drop and Liquid Flow Rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to ss. NR 462.05(6) and 462.06(1); and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to s. NR 462.05(7)(c).
4. Wet Scrubber pH	a. Collecting the pH monitoring system data according to ss. NR 462.05(6) and 462.06(1); and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to s. NR 462.05(7)(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to ss. NR 462.05(6) and 462.06(1); and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to s. NR 462.05(7)(c).
6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input	a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to ss. NR 462.05(6) and 462.06(1); and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to s. NR 462.05(7)(c).
7. Fuel Pollutant Content	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to s. NR 462.05(7)(c) or (d) as applicable; and b. Keeping monthly records of fuel use according to s. NR 462.06(2)(a).

Table 9
Reporting Requirements

As stated in s. NR 462.07(2), you shall comply with the following requirements for reports:

You shall submit:	The report shall contain…	You shall submit the report…
1. A compliance report.	a. Information required in s. NR 462.07(2)(c)1. to 11.; and b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this chapter that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the continuous monitoring systems, including continuous emissions monitoring system, continuous opacity monitoring system and operating parameter monitoring systems, were out-of-control as specified in s. NR 460.07(3)(g), a statement that there were no periods during which the continuous monitoring systems were out-of-control during the reporting period; and c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report shall contain the information in s. NR 462.07(2)(d). If there were periods during which the continuous monitoring systems, including continuous emissions monitoring system, continuous opacity monitoring system and operating parameter monitoring systems, were out-of-control, as specified in s. NR 460.07(3)(g), the report shall contain the information in s. NR 462.07(2)(e); and d. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your startup, shutdown and malfunction plan, the compliance report shall include the information in s. NR 460.09(4)(e)1.	Semiannually according to the requirements in s. NR 462.07(2)(b).

You shall submit:	The report shall contain…	You shall submit the report…
2. An immediate startup, shutdown and malfunction report if you had a startup, shutdown or malfunction during the reporting period that is not consistent with your startup, shutdown and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.	a. Actions taken for the event; and	By fax or telephone within 2 working days after starting actions inconsistent with the plan; and
	b. The information in s. NR 460.09(4)(e)2. and 3.	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the department.

SECTION 8. NR 484.04(15), (18) and (20m) are amended to read:

Table 2
CFR Appendix References

CFR Appendix Referenced		Title	Incorporated by Reference For
NR 484.04			
(15)	40 CFR part 60 Appendix A, Method 5	Determination of Particulate Emissions from Stationary Sources	40 CFR part 61 Appendix B, Method 101 NR 462 Table 5
(18)	40 CFR part 60 Appendix A, Method 22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares	NR 415.075(3)(c) NR 460, Appendix DDDDD
(20m)	40 CFR part 60 Appendix A, Method 29	Determination of Metals Emissions from Stationary Sources	NR 446.09(1)(c)1. NR 462 Table 5.

SECTION 9. NR 484.04(24m) is created to read:

Table 2
CFR Appendix References

CFR Appendix Referenced		Title	Incorporated by Reference For
NR 484.04			
(24m)	40 CFR part 63, Subpart DDDDD, Appendix A	Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives	NR 462

SECTION 10. NR 484.06(4) third Note, (c), (d) and (e) are created to read:

Note: Copies of the document listed in par. (c) may be downloaded from the internet for personal use from http://www.epa.gov/ttn/emc/cem/tribo.pdf. Copies of the documents listed in par. (e) may be downloaded from the internet for personal use from http://www.epa.gov/sw-846/main.htm.

Those without access to a computer can obtain printed copies of these documents from:

National Technical Information Service

5285 Port Royal Road

Springfield VA 22161

Table 4D
U.S. Environmental Protection Agency Document Reference

Document Number	Title	Incorporated by Reference For
NR 484.06		
(4)(c) EPA-454/R-98-015, September 1997	Fabric Filter Bag Leak Detection Guidance	NR 462.05(6)(i)
(d) EPA-453/R-01-005	National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Plants--Background Information for Proposed Standards	NR462.01(4)(k)
(e) EPA, SW-846	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, September 1986, as amended by Updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998) and IIIB (November 2004)	NR 462 Table 6

SECTION 11. NR 484.10(3), (7) and (8) are amended to read:

Table 5
ASTM Standard References

Standard Number		Standard Title	Incorporated by Reference For
NR 484.10			
(3)	ASTM D129-00 (2005)	Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendices A and D NR 439.08(2)(b)
(7)	ASTM D388-99e1 (2004)	Standard Classification of Coals by Rank	40 CFR part 75 Appendix F NR 400.02(40) NR 462.02(6)

(8)	ASTM ~~D396-02~~ D396-02a	Standard Specification for Fuel Oils	NR 400.02(70) NR 400.02(135) NR 420.03(1)(a) NR 462.02(11) and (41)

SECTION 12. NR 484.10(26m) is created to read:

Table 5
ASTM Standard References

Standard Number		Standard Title	Incorporated by Reference For
NR 484.10			
(26m)	ASTM D1835-03a	Standard Specification for Liquid Petroleum Gases	NR 462.02(36)(b)

SECTION 13. NR 484.10(30), (33) and (42) are amended to read:

Table 5
ASTM Standard References

Standard Number		Standard Title	Incorporated by Reference For
NR 484.10			
(30)	ASTM D2013-01	Standard Method of Preparing Coal Samples for Analysis	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendix F NR 439.08(1)(b) NR 462, Table 6
(33)	ASTM D2234-02	Standard Practice for Collection of a Gross Sample of Coal	40 CFR part 60 Appendix A, Method 19 40 CFR part 75 Appendix F NR 439.08(1)(a) NR 439.085(2)(a)1. NR 439.085(2)(b)1. NR 439.085(2)(c)1. NR 462, Table 6
(42)	ASTM ~~D3173-00~~ D3173-02	Standard Test Method for Moisture in the Analysis Sample of Coal and Coke	40 CFR part 60 Appendix A, Method 19 NR 439.08(1)(f) NR 462, Table 6

SECTION 14. NR 484.10(47L) is created to read:

Table 5
ASTM Standard References

Standard Number		Standard Title	Incorporated by Reference For
NR 484.10			
(47L)	ASTM D3683-94 (2000)	Standard Test Method for Trace Elements in Coal or Coke Ash by Atomic Absorption	NR 462, Table 6

SECTION 15. NR 484.10(47m) is amended to read:

Table 5
ASTM Standard References

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10		
(47m) ASTM D3684-01	Standard Test Method for Total Mercury in Coal by Oxygen Bomb Combustion/Atomic Absorption Method	NR 446.027(1)(b) NR 446.04(1) NR 446.04(2) NR 446.09(1)(b) NR 446.09(1)(c)2. NR 462, Table 6

SECTION 16. NR 484.10(55p), (55t), (55x), (56d), (56h), (56p) and (56t) are created to read:

Table 5
ASTM Standard References

Standard Number	Standard Title	Incorporated by Reference For
NR 484.10		
(55p) ASTM D6323-98 (2003)	Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities	NR 462, Table 6
(55t) ASTM D6522-00	Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers	NR 462, Table 5
(55x) ASTM D6784-02	Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)	NR 462, Table 5
(56d) ASTM E711-87 (2004)	Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter	NR 462, Table 6
(56h) ASTM E776-87 (2004)	Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel	NR 462, Table 6
(56p) ASTM E871-82 (1998)	Standard Method of Moisture Analysis of Particulate Wood Fuels	NR 462, Table 6
(56t) ASTM E885-88 (2004)	Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy	NR 462, Table 6

SECTION 17. NR 484.11(6)(b) is amended to read:

Table 6F
ASME Document Reference

Document Number	Title	Incorporated by Reference For
NR 484.11(6) (b) PTC 19.10-1981	Flue and Exhaust Gas Analysis	NR 462, Table 5 NR 465.28(7)(a)3.

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.

SECTION19. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on May 24, 2006.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By_____
Scott Hassett, Secretary

(SEAL)