(3) When the Benefits Administrator does not receive an application from a competing claimant(s) until after another person has begun to receive payments based upon the service of the participant, the payments will continue until the time limit for filing a request for reconsideration has expired, or, if a reconsideration decision is made, until the time limit for filing an appeal to the Department has expired or the Department has issued a final decision on a timely appeal, whichever is later.

[FR Doc. 00–32722 Filed 12–21–00; 8:45 am]

BILLING CODE 4810–25–P

DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

37 CFR Part 1

RIN 0651–AA98

Changes to Implement the Patent Business Goals

AGENCY: United States Patent and Trademark Office, Commerce.

ACTION: Final rule; correction.

SUMMARY: The United States Patent and Trademark Office (Office) published a final rule in the **Federal Register** of September 8, 2000, revising the rules of practice in patent cases to implement the Patent Business Goals. The Office also published a correction notice in the **Federal Register** of December 18, 2000, correcting errors in the final rule. This document corrects an error in the correction notice and makes the correction retroactive to December 18, 2000.

EFFECTIVE DATE: December 18, 2000.

FOR FURTHER INFORMATION CONTACT: Hiram H. Bernstein ((703) 305–8713), Senior Legal Advisor, or Robert J. Spar, Director ((703) 308–5107), Office of Patent Legal Administration (OPLA), directly by phone, or by facsimile to (703) 305–1013, marked to the attention of Mr. Bernstein, or by mail addressed to: Box Comments—Patents, Commissioner for Patents, Washington, D.C. 20231.

SUPPLEMENTARY INFORMATION: The Office published a final rule in the **Federal Register** of September 8, 2000 (65 FR 54604), entitled ''Changes to Implement Patent Business Goals,'' and a correction notice in the **Federal Register** of December 18, 2000 (65 FR 78958) correcting errors in the final rule. The correction notice inadvertently indicated that the processing fee for correcting inventorship in a patent under 37 CFR 1.324 is $55.00. The processing fee for correcting inventorship in a patent under § 1.324 is actually $130.00.

In rule FR Doc. 00–31958, published on December 18, 2000 (65 FR 78958), and in 37 CFR Part 1 make the following corrections:

§ 1.20 [Corrected]

1. On page 78960, in the first column, § 1.20, paragraph (b), line 3, correct ''$55.00'' to read ''$130.00''.

Dated: December 19, 2000.

Albin F. Drost,

Acting General Counsel.

[FR Doc. 00–32773 Filed 12–21–00; 8:45 am]

BILLING CODE 3510–16–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 63

[AD–FRL–6917–1]

RIN 2060–AH74

National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; amendments.

SUMMARY: On January 25, 2000 (65 FR 3907), we proposed amendments to the pulp and paper national emission standards for hazardous air pollutants (NESHAP) (63 FR 18504, April 15, 1998). The 1998 Pulp and Paper NESHAP is the air component of the integrated air and water rules for the pulp and paper industry (known as the Pulp and Paper Cluster Rules). The NESHAP limit and control hazardous air pollutants (HAP) that are known to cause or suspected to cause cancer or other serious health or environmental effects. These final amendments include changes to the pulping process vent standards, the biological treatment system standards, monitoring requirements, and test methods and procedures to address technical issues identified after promulgation of the 1998 Pulp and Paper NESHAP. Also, drafting errors in the final rule that were identified since proposal of these amendments are being corrected by this action. These amendments do not change the level of control or compromise the environmental protection achieved by the 1998 Pulp and Paper NESHAP. This action also clarifies that downtime due to routine maintenance of pulping process vent control devices is included in the excess emissions allowances. Lastly, in compliance with the Paperwork Reduction Act (PRA), we are amending as a final rule the Office of Management and Budget (OMB) approval table to list the OMB control number issued under the PRA for information collection requirements for the 1998 Pulp and Paper NESHAP.

EFFECTIVE DATE: February 20, 2001.

ADDRESSES: Docket No. A–92–40 contains supporting information for this action and the prior promulgated and proposed amendments to the 1998 Pulp and Paper NESHAP. The docket is located at the U.S. EPA, Air and Radiation Docket and Information Center (6102), 401 M Street SW, Washington, DC 20460, in Room M–1500, Waterside Mall (ground floor), and is available for inspection and copying between 8 a.m. and 5:30 p.m., Monday through Friday except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. Stephen Shedd, Emission Standards Division (MD–13), U.S. EPA, Research Triangle Park, NC 27711; telephone (919) 541–5397, e-mail shedd.steve@epa.gov. For questions on compliance and applicability determinations, contact Mr. Seth Heminway, Office of Enforcement and Compliance Assessment (2223A), U.S. EPA, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone (202) 564–7017, e-mail heminway.seth@epa.gov.

SUPPLEMENTARY INFORMATION: *Docket.* The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the Clean Air Act (CAA).) The regulatory text and other materials related to this rulemaking are available for review in the docket, or copies may be mailed on request from the Air Docket by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials. *World Wide Web (WWW).* In addition to being available in the docket, an electronic copy of today's amendments

will be available on the WWW through the Technology Transfer Network (TTN). Following signature, we will post a copy of these amendments on the TTN's policy and guidance page for newly proposed or promulgated rules *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. Also, a separate page on the TTN provides all the proposal and promulgation notices, support documents, and implementation information for the 1998 Pulp and Paper NESHAP *http://www.epa.gov/ttn/uatw/pulp/pulppg.html.* If you need more information regarding the TTN, call the TTN HELP line at (919) 541–5384.

Judicial Review. The EPA proposed these amendments to the 1998 Pulp and Paper NESHAP on January 25, 2000 (65 FR 3907). This final rule adopting the amendments constitutes final administrative action concerning that proposal. Under section 307(b)(1) of the CAA, judicial review of final rules is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by February 20, 2001. Under section 307(b)(2) of the CAA, the requirements established by today's final rule may not be challenged later in civil or criminal proceeding brought by the EPA to enforce these requirements.

Regulated Entities. Entities potentially regulated by this action include:

Category	SIC	NAICS	Examples of regulated entities
Industry	26	3221	Pulp mills and integrated mills (mills that manufacture pulp and paper/paperboard) that chemically pulp wood fiber.

This list is not intended to be exhaustive. It provides a guide regarding the types of entities that we expect to regulate by this action. To determine whether this action would regulate your facility, you must carefully examine the applicability criteria in § 63.440 of the final rule. If you have questions regarding the applicability of this action to a particular situation or questions about compliance approaches, permitting, enforcement, and rule determinations, please contact the local or State air pollution control agency who has permitting authority for your facility. If you are unsure of who has the permitting authority or need additional assistance, you should contact the appropriate EPA regional office below.

Region I: U.S. EPA New England Director, Air Compliance Program, 1 Congress Street, Suite 1100 (SEA), Boston, MA 02114–2023, Phone: (617) 918–1650, Fax: (617) 918–1505

Region II: U.S. EPA—Region 2, Air Compliance Branch, 290 Broadway, New York, NY 10007, Phone: (212) 637–4080, Fax: (212) 637–3998

Region III: U.S. EPA—Region 3, Chief, Air Enforcement Branch (3AP12), 1650 Arch Street, Philadelphia, PA 19103–2029, Phone: (215) 814–3438, Fax: (215) 814–2134, Region 3 Office Website: http://www.epa.gov/reg3artd/hazpollut/hazairpol.htm

Region IV: U.S. EPA—Region 4, Air and Radiation Technology Branch, Atlanta Federal Center, 61 Forsyth Street, Atlanta, Georgia 30303–3104, Phone: (404) 562–9105, Fax: (404) 562–9095

Region V: U.S. EPA—Region 5, Air Enforcement and Compliance Assurance Branch (AE–17J), 77 West Jackson Boulevard, Chicago, IL 60604–3590, Phone: (312) 353–2088, Fax: (312) 353–8289

Region VI: U.S. EPA—Region 6, Chief, Toxics Enforcement Section (6EN–AT), 1445 Ross Avenue, Dallas, TX 75202–2733, Phone: (214) 665–7224, Fax: (214) 665–7446, Region 6 Office Website: www.epa.gov/region6

Region VII: U.S. EPA—Region 7, 901 N. 5th Street, Kansas City, KS 66101, Phone: (913) 551–7020, Fax: (913) 551–7844, Office Website: http://www.epa.gov/region07/programs/artd/air/toxics/airtox1.htm.

Region VIII: U.S. EPA—Region 8, Air Enforcement Program (8ENF–T), 999 18th Street, Suite 500, Denver, CO 80202, Phone: (303) 312–6312, Fax: (303) 312–6409

Region IX: U.S. EPA—Region 9, Air Division, 75 Hawthorne Street, San Francisco, CA 94105, Phone: (415) 744–1219, Fax: (415) 744–1076

Region X: U.S. EPA—Region 10, Office of Air Quality (OAQ–107), 1200 Sixth Avenue, Seattle, WA 98101, Phone: (206) 553–4273, Fax: (206) 553–0110

Outline. The information presented in this preamble is organized as follows:

I. Background

The EPA promulgated the 1998 Pulp and Paper NESHAP on April 15, 1998 (63 FR 18504), with subsequent amendments for corrections, clarifications, and to provide technical amendments.

On January 25, 2000 (65 FR 3907), we proposed amendments to the 1998 Pulp and Paper NESHAP to revise the compliance demonstration procedures for combustion devices used to control pulping vent gases and for biological treatment systems used to treat pulping condensates, and to correct minor drafting errors. The proposed amendment regarding the pulping vent combustion devices removed the requirement, in some cases, to conduct an initial performance test or to continuously monitor the temperature of the control device. Briefly, the proposed amendments for biological treatment systems: Added an alternative emission standard (minimum HAP or methanol mass removal), specified a finite list of HAP (instead of total HAP) for use in demonstrating compliance, allowed for determination of site-specific monitoring parameters, and added testing and monitoring procedures for biological treatment systems that do not meet the criteria for a ''thoroughly mixed'' system.

In response to the January 25, 2000 proposed amendments, we received four public comment letters from industry representatives. In developing today's final rule amendments, we considered public comment where appropriate, and we are revising the compliance demonstration procedures for combustion devices used to control pulping vent gases; revising the standards, monitoring requirements,

and test methods and procedures for biological treatment systems; and correcting minor drafting errors. We are also specifying that downtime due to routine maintenance of pulping process vent control devices is included in the excess emissions allowances. Although maintenance downtime was not part of the January 25, 2000 proposed amendments, we are using this notice to clarify our intent.

II. Summary of the Final Amendments

In today's final rule, we are promulgating the following amendments to the 1998 Pulp and Paper NESHAP and clarifying the downtime provision for pulping vent control devices. We are amending:

- The standards for the pulping system at kraft, soda, and semi-chemical processes (§ 63.443(d)(4)) to remove the requirement, in some cases, to conduct an initial performance test or to continuously monitor the temperature of the pulping vent control device.
- The standards for kraft pulping process condensates to add mass emissions standards for biological treatment provisions (§ 63.446(e)(2)) and to refer to the procedure for measuring total HAP in § 63.457(g).
- The standards for kraft pulping process condensates (§ 63.446(i)) to add a reference to the minimum mass condensate collection option (§ 63.446(c)(3)) and to correct a minor drafting error.
- The open biological treatment system monitoring requirements (§ 63.453(j)) to allow for site-specific monitoring parameters and to clarify the quarterly performance test procedures.
- The monitoring requirements section (§ 63.453(n)) to include the reference to the site-specific biological treatment system monitoring parameters and to correct a minor drafting error.
- The open biological treatment system monitoring requirements (§ 63.453(p)) to revise the procedures for conducting the optional performance tests and clarify the timing of corrective actions taken during monitoring parameter excursions.
- § 63.454 to address recordkeeping requirements for documenting unsafe sampling conditions and the results of optional performance tests conducted in response to monitoring parameter excursions, and add corresponding reference.
- The reporting requirements section (§ 63.455(e)) to add performance testing notification requirements to be used if open biological treatment system performance test results are used to revise approved monitoring values or ranges.
- The test methods and procedures section (§ 63.457(c)(1)) to correct the reference to the liquid sampling procedures.
- The test methods and procedures section (§ 63.457(c)(4)) to add the word ''open'' before ''biological treatment system.''
- The test methods and procedures section (§ 63.457(c)(5) and (6)) to specify the procedures for determining the minimum measurement level of HAP for a given test method.
- The test methods and procedures section (§ 63.457(g)) to specify the measurement of only four HAP for biological treatment systems.
- The test methods and procedures for open biological treatment systems (§ 63.457(l)) to remove the total HAP percent reduction procedure, to add the methanol percent reduction and mass removal procedures, to add an equation for determining the ratio of nonmethanol HAP to methanol, to add clarity to the purpose of the requirements, and to correct minor drafting errors.
- The test methods and procedures for open biological treatment systems (§ 63.457(m)) to correct references.
- The test methods and procedures for open biological treatment systems (§ 63.457(n)) to add the word ''open'' to the paragraph title and to correct minor drafting errors.
- The delegation of authority section (§ 63.458(b)(5)) to add a reference to the procedure for determining the minimum measurement level of HAP.
- To add monitoring procedures (appendix E) for biological treatment systems when more detailed sampling is unsafe.
- The table in part 9 that includes the currently approved information request control numbers to add the 1998 Pulp and Paper NESHAP information collection requirements.

III. Summary of Public Comments, Responses, and Changes to the Standards

Generally, the comments were supportive of the proposed amendments, and we have not summarized those positive comments. We received no adverse comments regarding the proposed amendment for pulping vent combustion devices; therefore, the amendment is being promulgated as proposed. Below is an overview of the major issues raised by commenters and our responses. A complete summary of major comments and responses is available in the docket and on the WWW. The **ADDRESSES** and **SUPPLEMENTARY INFORMATION** sections of this preamble contain detailed information on the docket and WWW.

The major public comments we received suggested changes and clarifications to the proposed amendments for the standards, monitoring requirements, and test methods for biological treatment systems.

Individual HAP procedure. We proposed a procedure (the ''individual HAP procedure'') that can be used to demonstrate compliance of biological treatment systems on an individual HAP basis (either percent reduction or mass removal). The procedure was proposed as an alternative to demonstrating compliance by measuring total HAP. To use the procedure, you must measure the mass of the individual HAP entering and exiting the biological treatment system.

The comments stated that the proposed procedure is not viable because the outlet concentrations of the nonmethanol HAP will be below the detection limit of the test methods specified in the 1998 Pulp and Paper NESHAP. We agree with the commenter that the proposed individual HAP procedure is not viable due to lack of adequate test methods. Therefore, we are withdrawing the proposed individual HAP procedure and its associated test methods (§ 63.446(e)(2)(i) and § 63.457(l)(1) and (2) of the proposed amendments).

Minimum measurement level procedure. We proposed amendments to the test methods and procedures section (§ 63.457(c)) that added two alternative procedures for determining the minimum measurement level (MML) of specific HAP in pulping process condensate streams. The comments received stated that several clarifications and corrections to the proposed procedures were needed. We agree with the suggested clarifications and corrections, and we have revised the 1998 Pulp and Paper NESHAP accordingly.

Methanol procedure for biological treatment systems. We proposed a procedure (the ''methanol procedure'') that can be used as an alternative to demonstrating compliance of biological treatment systems on an individual HAP basis. As part of the methanol procedure, you are required to measure the ratio of nonmethanol HAP (acetaldehyde, methyl ethyl ketone, and propionaldehyde) mass to methanol mass. The value of this ratio is designated in the proposed amendments as ''r.'' The 1998 Pulp and Paper NESHAP require total HAP measurements on a quarterly basis. We requested comments and data to

determine if quarterly testing for total HAP is still warranted, or if testing for total HAP annually is adequate.

The comments received stated that an annual measurement of ''r'' is sufficient since the value of ''r'' is very low and the corresponding impact on the mass removal determinations will be small. We agree with the commenter that an annual measurement of ''r'' is sufficient. Therefore, we are revising the biological treatment system monitoring requirements (§ 63.453(j)(3)(ii)) to specify that the value of ''r'' must be determined only during the first-quarter test of each year.

Quarterly performance tests versus initial performance tests. We proposed adding a mass removal option for biological treatment systems in addition to the percent reduction standard already contained in the 1998 Pulp and Paper NESHAP. We also proposed to amend the quarterly testing and compliance monitoring requirements to make conforming revisions by replacing the term ''percent reduction tests'' with ''performance test'' or ''compliance test.''

The comments received stated that the EPA should clarify that the requirements for the quarterly tests are less extensive than for the initial performance test since the quarterly tests are part of the monitoring requirements. We disagree with the comments, and we are making text changes to the quarterly testing requirements and the reporting requirements to use consistent language.

Condensate variability. We received several comments stating that the performance test and continuous monitoring procedures for the condensate collection and treatment requirements should account for inherent hour-to-hour and day-to-day variability in the amount of methanol generated in the regulated condensates. Based on the data being collected for industry condensate characterization studies, the comments stated that there is significant variability over all time scales, and the causes of methanol variability are beyond the control of the mill operator. Consequently, there is a chance that the amount of methanol collected and sent to treatment on a short-term basis can be less than that required by the standards and can lead to noncompliance, even though the pulping processes and controls are operating normally.

We agree that condensate variability is a concern in both the initial and continuous compliance demonstrations. Variability is particularly a concern for the mass removal option where compliance is based on an amount of mass collected and the performance of the control device or system.

Some comments recommended that because of the variability of methanol in condensate streams, the rule should be revised to clarify that long-term averages are necessary for demonstrating initial and continuous compliance with the condensate collection standards. While we agree that variability should be considered in establishing appropriate averaging periods, the 1998 Pulp and Paper NESHAP already provide you with flexibility in establishing the appropriate averaging periods for demonstrating initial compliance and conducting continuous compliance monitoring. Consequently, we are not changing the 1998 Pulp and Paper NESHAP text to address this issue.

We proposed mass removal standards, expressed as either individual HAP or methanol, for biological treatment systems as an alternative to the percent reduction standards. Compliance with a mass removal standard requires that the inlet HAP (methanol) mass and the performance of the treatment device be measured over the same time period. The comments recommended that the rule be revised to consider variability of inlet mass concentrations during performance tests of condensate treatment devices (i.e., steam strippers and biological treatment systems). To address short-term variability in condensates on the day the performance test is conducted, these comments recommended that the mass in condensates be based on long-term averages established prior to the date of the test.

We disagree with the comments that the mass in condensates be based on data established prior to the date of the treatment system performance test. The performance test for the treatment standard must be based on actual test data of the inlet HAP (or methanol) mass and the treatment device performance on the same time basis. However, we agree with the comments that the proposed rule amendments did not adequately account for variability during optional tests to confirm the performance of biological treatment systems during parameter excursions. Today's final rule amendments, therefore, provide some additional flexibility in conducting these tests.

Procedures for responding to parameter excursions in biological treatment systems. We proposed a modeling procedure (appendix E of 40 CFR part 63) to use during unsafe sampling conditions. The procedure would be used whenever a parameter excursion occurs during an event when it is too dangerous, hazardous, or otherwise unsafe for personnel to collect samples from an open nonthoroughly mixed biological treatment system. The procedure would be used to satisfy the daily monitoring requirements until such time as a full performance test can be conducted under safe conditions.

The comments received stated that a conflict exists between the timing of the modeling procedure and the subsequent performance test, and on initiating steps to end the parameter excursion. We are revising the monitoring requirements of the rule to clarify the timing of the modeling procedure, the performance test, and implementation of corrective actions; however, the intent of the 1998 Pulp and Paper NESHAP remains unchanged since we believe that there is no conflict in this rule requirement.

Monitoring procedures for biological treatment systems during unsafe conditions. We proposed a modeling procedure (appendix E of 40 CFR part 63) for monitoring open biological treatment systems that can be used when unsafe conditions exist in the system that would prevent personnel from conducting the sampling necessary to conduct a full performance test. The comments suggested several clarifications and corrections to the proposed modeling procedure. We agree that clarifications are needed in some of the cases identified by the commenter, and these clarifications have been added.

Performance test notifications. We proposed that the notification period for certain compliance monitoring testing be reduced from 60 days, as required by the 1998 Pulp and Paper NESHAP general provisions (§ 63.7(b)), to 15 days. This shortened notification period would be used if a mill intends to revise the allowable monitoring parameter ranges or values using data recorded during any valid subsequent performance tests required in the monitoring requirements section of the 1998 Pulp and Paper NESHAP. We received comments stating that the 15-day period was too long, and that same day notification should be allowed. We disagree with the comments, and we believe the length of the notification period (15 days) is appropriate. Consequently, the 15-day notification change is being made to the 1998 Pulp and Paper NESHAP as proposed.

Drafting errors and clarifications. We proposed several corrections to minor drafting errors identified following promulgation of the 1998 Pulp and Paper NESHAP. No comments were received regarding those proposed corrections. Therefore, the amendments for the corrections and minor drafting errors are being published as proposed.

However, below are some additional corrections found since these amendments were proposed on January 25, 2000.

In the April 12, 1999 final rule interpretation and technical amendments, we inserted a new test procedure into the middle of a list of other procedures. One of those other procedures is cross referenced in another section of the rule, and we did not change the cross reference text. In today's final rule amendments, we are correcting that error by changing the cross referenced procedure text in § 63.458(b)(4), from § 63.457(c)(3)(ii) to its new location in § 63.457(c)(3)(iii). Additionally, commenters identified a drafting error in the original rule text published on April 15, 1998. We are correcting the error by changing the cross referenced text in the standards for condensate closed collection systems (§ 63.446(d)(1)), from § 63.962(b)(3)(ii)(B)(*5*)(*iii*) to its correct location in § 63.962(b)(*5*)(iii).

In the January 25, 2000 proposed amendments notice, we proposed several amendments to the standards (§ 63.446(e)(2)), monitoring requirements (§ 63.453(j)), and test methods and procedures (§ 63.457(l)) used for biological treatment system. These proposed amendments allow you to comply with a percent reduction or mass removal standard using individual HAP or using methanol under certain conditions. In these proposed amendments, the following drafting errors and corrections were identified by commenters:

- The quarterly testing requirements in § 63.453(j)(3(i) contain incorrect language from the 1998 Pulp and Paper NESHAP and references to the condensate standards,
- An incorrect variable was used in the proposed amendments (§ 63.457(l)) to the test methods and procedures section, and
- The definition of ''r'' (the ratio of nonmethanol HAP to methanol) and the equation to determine ''r'' was not included in the proposed amendments (§ 63.457(l)(3) and

(4) to the test methods and procedures section. We agree with each of the drafting errors identified by the commenters, and we are revising the rule accordingly.

Control device downtime due to scheduled maintenance. In today's final rule amendments, we are clarifying that downtime associated with routine maintenance of control devices used to reduce emissions of HAP from pulping process vents is included in the excess emissions allowances. Following promulgation of the 1998 Pulp and Paper NESHAP, we received comments stating that routine maintenance of control devices should be included in the excess emission allowances, since this category of outages is not covered under the startup, shutdown, and malfunction provisions.

In the 1998 Pulp and Paper NESHAP, the excess emission allowances include periods when the control device is inoperable and when the operating parameter values established during the initial performance test cannot be maintained at the appropriate level. However, in the promulgation preamble (63 FR 18529–18530), we specifically stated that excess emission allowances did not include scheduled maintenance activities. When the 1998 Pulp and Paper NESHAP was promulgated, the EPA was considering revisions to the NESHAP general provisions that would address downtime associated with scheduled maintenance. Those revisions have not been made. Therefore, in today's final rule amendments, we are clarifying that excess emission allowances for pulping vent control devices (§ 63.443(e)) can include downtime due to scheduled maintenance activities.

IV. Information Collection Request (ICR)

This final rule amends the table of currently approved ICR control numbers issued by OMB. This final rule updates the table to list those 1998 Pulp and Paper NESHAP information requirements promulgated in 1998. We will continue to present OMB control numbers in a consolidated table format to be codified in 40 CFR part 9 of the Agency's regulations and in each CFR volume containing EPA regulations. The table lists the section numbers with reporting and recordkeeping requirements and the current OMB control numbers. This listing of the OMB control numbers and their subsequent codification in the CFR satisfy the requirements of the Paperwork Reduction Act and OMB's implementing regulations at 5 CFR part 1320. The ICR itself was subject to public notice and comment prior to OMB's approval of the ICR. Further, because amendment of the table in part 9 is technical in nature, we believe that another notice and comment period for this amendment is unnecessary. For these reasons, we believe that there is good cause under the Administrative Procedure Act (5 U.S.C. 553(b) to amend this table without prior notice and comment.

V. Administrative Requirements

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51375, October 4, 1993), the EPA must determine whether a regulatory action is ''significant'' and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to lead to a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, completion, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

The 1998 Pulp and Paper NESHAP was considered a ''significant regulatory action'' under Executive Order 12866. Accordingly, EPA prepared a regulatory impact analysis. These final rule amendments make technical revisions and correct inadvertent drafting errors. The OMB evaluated this action and determined it to be nonsignificant; thus, it did not require OMB review.

B. Executive Order 13132, Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires the EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

Under Section 6 of Executive Order 13132, the EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance

costs incurred by State and local governments, or the EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law unless the EPA consults with State and local officials early in the process of developing the proposed regulation.

If EPA complies by consulting, Executive Order 13132 requires EPA to provide to the OMB, in a separately identified section of the preamble to the rule, a federalism summary impact statement (FSIS). The FSIS must include a description of the extent of EPA's prior consultation with State and local officials, a summary of the nature of their concerns and the EPA's position supporting the need to issue the regulation, and a statement of the extent to which the concerns of State and local officials have been met. Also, when EPA transmits a draft rule with federalism implications to OMB for review pursuant to Executive Order 12866, EPA must include a certification from the agency's Federalism Official stating that EPA has met the requirements of Executive Order 13132 in a meaningful and timely manner.

These final amendments to the 1998 Pulp and Paper NESHAP will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. While the 1998 Pulp and Paper NESHAP do not create mandates upon State, local, or tribal governments, EPA involved State and local air pollution control agencies in its development. Today's action does not create a mandate upon State, local, or tribal governments. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

C. Executive Order 13084, Consultations and Coordination with Indian Tribal Governments

Under Executive Order 13084, the EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or if EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to OMB, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.''

Today's final rule amendments do not significantly or uniquely affect the communities of Indian tribal governments. The 1998 Pulp and Paper NESHAP do not create mandates upon tribal governments. These amendments do not create a mandate on tribal governments. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply.

D. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that the EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The 1998 Pulp and Paper NESHAP fall into that category only in part: the minimum rule stringency is set according to a congressionally mandated, technology-based lower limit called the ''floor,'' while a decision to increase the stringency beyond this floor can be partly based on risk considerations.

No children's risk analysis was performed for the 1998 Pulp and Paper NESHAP rulemaking because no alternative technologies exist that would provide greater stringency at a reasonable cost, and, therefore, the results of any such analysis would have no impact on the stringency decision. Today's final rule amendments are not subject to Executive Order 13045 because they do not involve decisions on environmental health risks or safety risks that may disproportionately affect children.

E. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year.

Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted.

Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that today's final rule amendments do not contain a Federal mandate that may result in expenditures of $100 million or more to either State, local, or tribal governments, in the aggregate, or to the private sector in any 1 year. These amendments provide additional flexibility to the

1998 Pulp and Paper NESHAP and reduce compliance costs. Therefore, these amendments are not subject to the requirements of sections 202 and 205 of the UMRA.

F. Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA) 5 U.S.C. 601 et seq.

The RFA generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

The EPA determined that it is not necessary to prepare a regulatory flexibility analysis in connection with today's final rule amendments. These amendments will not result in increased impacts to small entities, but will provide additional flexibility to the 1998 Pulp and Paper NESHAP by adding equivalent treatment alternatives.

G. Paperwork Reduction Act

The EPA submitted the information requirements of the 1998 Pulp and Paper NESHAP for approval to the OMB on April 27, 1998 under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The EPA prepared an ICR document (ICR No. 1657.03), and a copy may be obtained from Sandy Farmer at U.S. EPA, Office of Environmental Information, Collection Strategies Division (2822), 1200 Pennsylvania Avenue, NW., Washington, DC 20460 or by calling (202) 260–2740. You may also request a copy by e-mail at: farmer.sandy@epa.gov or from the Office of Policy website at: http://www.epa.gov/icr. The ICR has been approved by OMB (OMB No. 2060–0387.)

These amendments to the 1998 Pulp and Paper NESHAP will have no impact on the information collection burden estimates made previously. Consequently, EPA has not revised the ICR.

H. National Technology Transfer and Advancement Act

Under section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, all Federal agencies are required to use voluntary consensus standards (VCS) in their regulatory procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA requires Federal agencies to provide Congress, through annual reports to OMB, with explanations when an agency decides not to use available and applicable VCS.

Today's final rule amendments do not establish new or modify existing technical standards. Therefore, consideration of VCS is not relevant to this action.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the SBREFA, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). These amendments will be effective February 20, 2001.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: December 7, 2000.

Carol M. Browner,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, parts 9 and 63 of the Code of Federal Regulations are amended as follows:

PART 9—[AMENDED]

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345 (d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table in numerical order to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation	OMB control no.
* * * * *	
National Emission Standards for Hazardous Air Pollutants for Source Categories	
* * * * *	
63.450, 63.453–63.455, and 63.457	2060–0387
* * * * *	

* * * * *

[3] The ICRs referenced in this section of the table encompass the applicable general provisions contained in 40 CFR part 63, subpart A, which are not independent information collection requirements.

* * * * *

PART 63—[AMENDED]

3. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart S—National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry

4. Amend § 63.443 by revising paragraph (d)(4) to read as follows:

§ 63.443 Standards for the pulping system at kraft, soda, and semi-chemical processes.

* * * * *

(d) * * *

(4) Reduce total HAP emissions using one of the following:

(i) A boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone; or

(ii) A boiler or recovery furnace with a heat input capacity greater than or equal to 44 megawatts (150 million British thermal units per hour) by introducing the HAP emission stream with the combustion air.

* * * * *

5. Amend § 63.446 by revising paragraphs (d)(1), (e)(2) and (i) to read as follows:

§ 63.446 Standards for kraft pulping process condensates.

* * * * *

(d) * * *

(1) Each closed collection system shall meet the individual drain system requirements specified in §§ 63.960, 63.961, and 63.962 of subpart RR of this part, except for closed vent systems and control devices shall be designed and operated in accordance with §§ 63.443(d) and 63.450, instead of in accordance with § 63.693 as specified in § 63.962 (a)(3)(ii), (b)(3)(ii)(A), and (b)(5)(iii); and

* * * * *

(e) * * *

(2) Discharge the pulping process condensate below the liquid surface of a biological treatment system and treat the pulping process condensates to meet the requirements specified in paragraph (e)(3), (4), or (5) of this section, and total HAP shall be measured as specified in § 63.457(g); or

* * * * *

(i) For the purposes of meeting the requirements in paragraph (c)(2) or (3) or paragraph (e)(4) or (5) of this section at mills producing both bleached and unbleached pulp products, owners and operators may meet a prorated mass standard that is calculated by prorating the applicable mass standards (kilograms of total HAP per megagram of ODP) for bleached and unbleached mills specified in paragraph (c)(2) or (3) or paragraph (e)(4) or (5) of this section by the ratio of annual megagrams of bleached and unbleached ODP.

6. Amend § 63.453 by revising paragraphs (j), (n), and (p) to read as follows:

§ 63.453 Monitoring requirements.

* * * * *

(j) Each owner or operator using an open biological treatment system to comply with § 63.446(e)(2) shall perform the daily monitoring procedures specified in either paragraph (j)(1) or (2) of this section and shall conduct a performance test each quarter using the procedures specified in paragraph (j)(3) of this section.

(1) Comply with the monitoring and sampling requirements specified in paragraphs (j)(1)(i) and (ii) of this section.

(i) On a daily basis, monitor the following parameters for each open biological treatment unit:

(A) Composite daily sample of outlet soluble BOD_5 concentration to monitor for maximum daily and maximum monthly average;

(B) Mixed liquor volatile suspended solids;

(C) Horsepower of aerator unit(s);

(D) Inlet liquid flow; and

(E) Liquid temperature.

(ii) If the Inlet and Outlet Concentration Measurement Procedure (Procedure 3) in appendix C of this part is used to determine the fraction of HAP compounds degraded in the biological treatment system as specified in § 63.457(l), conduct the sampling and archival requirements specified in paragraphs (j)(1)(ii)(A) and (B) of this section.

(A) Obtain daily inlet and outlet liquid grab samples from each biological treatment unit to have HAP data available to perform quarterly performance tests specified in paragraph (j)(3) of this section and the compliance tests specified in paragraph (p) of this section.

(B) Store the samples as specified in § 63.457(n) until after the results of the soluble BOD_5 test required in paragraph (j)(1)(i)(A) of this section are obtained. The storage requirement is needed since the soluble BOD_5 test requires 5 days or more to obtain results. If the results of the soluble BOD_5 test are outside of the range established during the initial performance test, then the archive sample shall be used to perform the mass removal or percent reduction determinations.

(2) As an alternative to the monitoring requirements of paragraph (j)(1) of this section, conduct daily monitoring of the site-specific parameters established according to the procedures specified in paragraph (n) of this section.

(3) Conduct a performance test as specified in § 63.457(l) within 45 days after the beginning of each quarter and meet the applicable emission limit in § 63.446(e)(2).

(i) The performance test conducted in the first quarter (annually) shall be performed for total HAP as specified in § 63.457(g) and meet the percent reduction or mass removal emission limit specified in § 63.446(e)(2).

(ii) The remaining quarterly performance tests shall be performed as specified in paragraph (j)(3)(i) of this section except owners or operators may use the applicable methanol procedure in § 63.457(l)(1) or (2) and the value of r determined during the first quarter test instead of measuring the additional HAP to determine a new value of r.

* * * * *

(n) To establish or reestablish the value for each operating parameter required to be monitored under paragraphs (b) through (j), (l), and (m) of this section or to establish appropriate parameters for paragraphs (f), (i), (j)(2), and (m) of this section, each owner or operator shall use the following procedures:

* * * * *

(p) The procedures of this paragraph apply to each owner or operator of an open biological treatment system complying with paragraph (j) of this section whenever a monitoring parameter excursion occurs, and the owner or operator chooses to conduct a performance test to demonstrate compliance with the applicable emission limit. A monitoring parameter excursion occurs whenever the monitoring parameters specified in paragraphs (j)(1)(i)(A) through (C) of this section or any of the monitoring parameters specified in paragraph (j)(2) of this section are below minimum operating parameter values or above maximum operating parameter values established in paragraph (n) of this section.

(1) As soon as practical after the beginning of the monitoring parameter excursion, the following requirements shall be met:

(i) Before the steps in paragraph (p)(1)(ii) or (iii) of this section are performed, all sampling and measurements necessary to meet the requirements in paragraph (p)(2) of this section shall be conducted.

(ii) Steps shall be taken to repair or adjust the operation of the process to end the parameter excursion period.

(iii) Steps shall be taken to minimize total HAP emissions to the atmosphere during the parameter excursion period.

(2) A parameter excursion is not a violation of the applicable emission standard if the results of the

performance test conducted using the procedures in this paragraph demonstrate compliance with the applicable emission limit in § 63.446(e)(2).

(i) Conduct a performance test as specified in § 63.457 using the monitoring data specified in paragraph (j)(1) or (2) of this section that coincides with the time of the parameter excursion. No maintenance or changes shall be made to the open biological treatment system after the beginning of a parameter excursion that would influence the results of the performance test.

(ii) If the results of the performance test specified in paragraph (p)(2)(i) of this section demonstrate compliance with the applicable emission limit in § 63.446(e)(2), then the parameter excursion is not a violation of the applicable emission limit.

(iii) If the results of the performance test specified in paragraph (p)(2)(i) of this section do not demonstrate compliance with the applicable emission limit in § 63.446(e)(2) because the total HAP mass entering the open biological treatment system is below the level needed to demonstrate compliance with the applicable emission limit in § 63.446(e)(2), then the owner or operator shall perform the following comparisons:

(A) If the value of f_{bio} (MeOH) determined during the performance test specified in paragraph (p)(2)(i) of this section is within the range of values established during the initial and subsequent performance tests approved by the Administrator, then the parameter excursion is not a violation of the applicable standard.

(B) If the value of f_{bio} (MeOH) determined during the performance test specified in paragraph (p)(2)(i) of this section is not within the range of values established during the initial and subsequent performance tests approved by the Administrator, then the parameter excursion is a violation of the applicable standard.

(iv) The results of the performance test specified in paragraph (p)(2)(i) of this section shall be recorded as specified in § 63.454(f).

(3) If an owner or operator determines that performing the required procedures under paragraph (p)(2) of this section for a nonthoroughly mixed open biological system would expose a worker to dangerous, hazardous, or otherwise unsafe conditions, all of the following procedures shall be performed:

(i) Calculate the mass removal or percent reduction value using the procedures specified in § 63.457(l) except the value for f_{bio} (MeOH) shall be determined using the procedures in appendix E to this part.

(ii) Repeat the procedures in paragraph (p)(3)(i) of this section for every day until the unsafe conditions have passed.

(iii) A parameter excursion is a violation of the standard if the percent reduction or mass removal determined in paragraph (p)(3)(i) of this section is less than the percent reduction or mass removal standards specified in § 63.446(e)(2), as appropriate, unless the value of f_{bio} (MeOH) determined using the procedures in appendix E of this section, as specified in paragraph (p)(3)(i), is within the range of f_{bio} (MeOH) values established during the initial and subsequent performance tests previously approved by the Administrator.

(iv) The determination that there is a condition that exposes a worker to dangerous, hazardous, or otherwise unsafe conditions shall be documented according to requirements in § 63.454(e) and reporting in § 63.455(f).

(v) The requirements of paragraphs (p)(1) and (2) of this section shall be performed and met as soon as practical but no later than 24 hours after the conditions have passed that exposed a worker to dangerous, hazardous, or otherwise unsafe conditions.

7. Amend § 63.454 by revising paragraph (a) and adding paragraphs (e) and (f) to read as follows:

§ 63.454 Recordkeeping requirements.

(a) The owner or operator of each affected source subject to the requirements of this subpart shall comply with the recordkeeping requirements of § 63.10, as shown in table 1 of this subpart, and the requirements specified in paragraphs (b) through (f) of this section for the monitoring parameters specified in § 63.453.

* * * * *

(e) The owner or operator of an open nonthoroughly mixed biological treatment system complying with § 63.453(p)(3) instead of § 63.453(p)(2) shall prepare a written record identifying the specific conditions that would expose a worker to dangerous, hazardous, or otherwise unsafe conditions. The record must include a written explanation of the specific reason(s) why a worker would not be able to perform the sampling and test procedures specified in § 63.457(l).

(f) The owner or operator of an open biological treatment system complying with § 63.453(p) shall prepare a written record specifying the results of the performance test specified in § 63.453(p)(2).

8. Amend § 63.455 by adding paragraphs (e) and (f) to read as follows:

§ 63.455 Reporting requirements.

* * * * *

(e) If the owner or operator uses the results of the performance test required in § 63.453(p)(2) to revise the approved values or ranges of the monitoring parameters specified in § 63.453(j)(1) or (2), the owner or operator shall submit an initial notification of the subsequent performance test to the Administrator as soon as practicable, but no later than 15 days, before the performance test required in § 63.453(p)(2) is scheduled to be conducted. The owner or operator shall notify the Administrator as soon as practicable, but no later than 24 hours, before the performance test is scheduled to be conducted to confirm the exact date and time of the performance test.

(f) To comply with the open biological treatment system monitoring provisions of § 63.453(p)(3), the owner or operator shall notify the Administrator as soon as practicable of the onset of the dangerous, hazardous, or otherwise unsafe conditions that did not allow a compliance determination to be conducted using the sampling and test procedures in § 63.457(l). The notification shall occur no later than 24 hours after the onset of the dangerous, hazardous, or otherwise unsafe conditions and shall include the specific reason(s) that the sampling and test procedures in § 63.457(l) could not be performed.

9. Section 63.457 is amended by:

a. Revising paragraph (c)(1) introductory text;

b. Revising paragraph (c)(4) introductory text;

c. Adding paragraph (c)(5);

d. Adding paragraph (c)(6);

e. Revising paragraph (g);

f. Revising paragraph (l) introductory text;

g. Revising paragraph (m)(1) introductory text;

h. Revising paragraph (m)(1)(iii);

i. Revising paragraph (m)(2) introductory text

j. Revising paragraph (m)(2)(ii) introductory text;

k. Revising paragraph (n).

The revisions and additions to read as follows:

§ 63.457 Test methods and procedures.

* * * * *

(c) * * *

(1) Samples shall be collected using the sampling procedures of the test method listed in paragraph (c)(3) of this section selected to determine liquid stream HAP concentrations;

* * * * *

(4) To determine soluble BOD_5 in the effluent stream from an open biological treatment unit used to comply with §§ 63.446(e)(2) and 63.453(j), the owner or operator shall use Method 405.1 of part 136 of this chapter with the following modifications:

* * * * *

(5) If the test method used to determine HAP concentration indicates that a specific HAP is not detectable, the value determined as the minimum measurement level (MML) of the selected test method for the specific HAP shall be used in the compliance demonstration calculations. To determine the MML for a specific HAP using one of the test methods specified in paragraph (c)(3) of this section, one of the procedures specified in paragraphs (c)(5)(i) and (ii) of this section shall be performed. The MML for a particular HAP must be determined only if the HAP is not detected in the normal working range of the method.

(i) To determine the MML for a specific HAP, the following procedures shall be performed each time the method is set up. Set up is defined as the first time the analytical apparatus is placed in operation, after any shut down of 6 months or more, or any time a major component of the analytical apparatus is replaced.

(A) Select a concentration value for the specific HAP in question to represent the MML. The value of the MML selected shall not be below the calibration standard of the selected test method.

(B) Measure the concentration of the specific HAP in a minimum of three replicate samples using the selected test method. All replicate samples shall be run through the entire analytical procedure. The samples must contain the specific HAP at the selected MML concentration and should be representative of the liquid streams to be analyzed in the compliance demonstration. Spiking of the liquid samples with a known concentration of the target HAP may be necessary to ensure that the HAP concentration in the three replicate samples is at the selected MML. The concentration of the HAP in the spiked sample must be within 50 percent of the proposed MML for the demonstration to be valid. As an alternative to spiking, a field sample above the MML may be diluted to produce a HAP concentration at the MML. To be a valid demonstration, the diluted sample must have a HAP concentration within 20 percent of the proposed MML, and the field sample must not be diluted by more than a factor of five.

(C) Calculate the relative standard deviation (RSD) and the upper confidence limit at the 95 percent confidence level using the measured HAP concentrations determined in paragraph (c)(5)(i)(B) of this section. If the upper confidence limit of the RSD is less than 30 percent, then the selected MML is acceptable. If the upper confidence limit of the RSD is greater than or equal to 30 percent, then the selected MML is too low, and the procedures specified in paragraphs (c)(5)(i)(A) through (C) of this section must be repeated.

(ii) Provide for the Administrator's approval the selected value of the MML for a specific HAP and the rationale for selecting the MML including all data and calculations used to determine the MML. The approved MML must be used in all applicable compliance demonstration calculations.

(6) When using the MML determined using the procedures in paragraph (c)(5)(ii) of this section or when using the MML determined using the procedures in paragraph (c)(5)(i), except during set up, the analytical laboratory conducting the analysis must perform and meet the following quality assurance procedures each time a set of samples is analyzed to determine compliance.

(i) Using the selected test method, analyze in triplicate the concentration of the specific HAP in a representative sample. The sample must contain the specific HAP at a concentration that is within a factor of two of the MML. If there are no samples in the set being analyzed that contain the specific HAP at an appropriate concentration, then a sample below the MML may be spiked to produce the appropriate concentration, or a sample at a higher level may be diluted. After spiking, the sample must contain the specific HAP within 50 percent of the MML. If dilution is used instead, the diluted sample must contain the specific HAP within 20 percent of the MML and must not be diluted by more than a factor of five.

(ii) Calculate the RSD using the measured HAP concentrations determined in paragraph (c)(6)(i) of this section. If the RSD is less than 20 percent, then the laboratory is performing acceptably.

* * * * *

(g) *Condensate HAP concentration measurement.* For purposes of complying with the kraft pulping condensate requirements in § 63.446, the owner or operator shall measure the total HAP concentration as methanol. For biological treatment systems complying with § 63.446(e)(2), the owner or operator shall measure total HAP as acetaldehyde, methanol, methyl ethyl ketone, and propionaldehyde and follow the procedures in § 63.457(l)(1) or (2).

* * * * *

(l) *Biological treatment system percent reduction and mass removal calculations.* To demonstrate compliance with the condensate treatment standards specified in § 63.446(e)(2) and the monitoring requirements specified in § 63.453(j)(3) using a biological treatment system, the owner or operator shall use one of the procedures specified in paragraphs (l)(1) and (2) of this section. Owners or operators using a nonthoroughly mixed open biological treatment system shall also comply with paragraph (l)(3) of this section.

(1) *Percent reduction methanol procedure.* For the purposes of complying with the condensate treatment requirements specified in § 63.446(e)(2)(i), the methanol percent reduction shall be calculated using the following equations:

$$R = \frac{f_{bio}(MeOH)}{(1+1.087\ (r))} * 100$$

$$r = \frac{F_{(nonmethanol)}}{F_{(methanol)}}$$

Where:

R=percent destruction.

$f_{bio}(MeOH)$=the fraction of methanol removed in the biological treatment system. The site-specific biorate constants shall be determined using the appropriate procedures specified in appendix C of this part.

r=ratio of the sum of acetaldehyde, methyl ethyl ketone, and propionaldehyde mass to methanol mass.

$F_{(nonmethanol)}$=the sum of acetaldehyde, methyl ethyl ketone, and propionaldehyde mass flow rates (kg/Mg ODP) entering the biological treatment system determined using the procedures in paragraph (j)(2) of this section.

$F_{(methanol)}$=the mass flow rate (kg/Mg ODP) of methanol entering the system determined using the procedures in paragraph (j)(2) of this section.

(2) *Mass removal methanol procedure.* For the purposes of complying with the condensate treatment requirements specified in

§ 63.446(e)(2)(ii) or (iii), the methanol mass removal shall be calculated using the following equation:

$F=F_b * (f_{bio}(MeOH)/(1 + 1.087(r)))$

Where:

F=methanol mass removal (kg/Mg ODP).

F_b=inlet mass flow rate of methanol (kg/Mg ODP) determined using the procedures in paragraph (j)(2) of this section.

f_{bio}(MeOH)=the fraction of methanol removed in the biological treatment system. The site-specific biorate constants shall be determined using the appropriate procedures specified in appendix C of this part.

r=ratio of the sum of acetaldehyde, methyl ethyl ketone, and propionaldehyde mass to methanol mass determined using the procedures in paragraph (l) of this section.

(3) The owner or operator of a nonthoroughly mixed open biological treatment system using the monitoring requirements specified in § 63.453(p)(3) shall follow the procedures specified in section III.B.1 of appendix E of this part to determine the borate constant, Ks, and characterize the open biological treatment system during the initial and any subsequent performance tests.

* * * * *

(m) * * *

(1) To demonstrate compliance with the percent mass requirements specified in § 63.446(c)(2), the procedures specified in paragraphs (m)(1)(i) through (iii) of this section shall be performed.

* * * * *

(iii) Compliance with the segregation requirements specified in § 63.446(c)(2) is demonstrated if the condensate stream or streams from each equipment system listed in § 63.446(b)(1) through (3) being treated as specified in § 63.446(e) contain at least as much total HAP mass as the target total HAP mass determined in paragraph (m)(1)(ii) of this section.

(2) To demonstrate compliance with the percent mass requirements specified in § 63.446(c)(3), the procedures specified in paragraphs (m)(2)(i) through (ii) of this section shall be performed.

* * * * *

(ii) Compliance with the segregation requirements specified in § 63.446(c)(3) is demonstrated if the total HAP mass determined in paragraph (m)(2)(i) of this section is equal to or greater than the appropriate mass requirements specified in § 63.446(c)(3).

(n) *Open biological treatment system monitoring sampling storage.* The inlet and outlet grab samples required to be collected in § 63.453(j)(1)(ii) shall be stored at 4°C (40°F) to minimize the biodegradation of the organic compounds in the samples.

* * * * *

10. Amend § 63.458 by revising paragraph (b)(4) and adding paragraph (b)(5) to read as follows:

§ 63.458 Delegation of authority.

* * * * *

(b) * * *

(4) Section 63.457(c)(3)(iii)—Use of an alternative test method for total HAP or methanol in wastewater.

(5) Section 63.457(c)(5)(ii)—Determination of the minimum measurement level in liquid streams for a specific HAP using the selected test method.

11. Add appendix E to this part to read as follows:

Appendix E to Part 63—Monitoring Procedure for Nonthoroughly Mixed Open Biological Treatment Systems at Kraft Pulp Mills Under Unsafe Sampling Conditions

I. Purpose

This procedure is required to be performed in subpart S of this part, entitled National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. Subpart S requires this procedure in § 63.453(p)(3) to be followed during unsafe sampling conditions when it is not practicable to obtain representative samples of hazardous air pollutants (HAP) concentrations from an open biological treatment unit. It is assumed that inlet and outlet HAP concentrations from the open biological treatment unit may be obtained during the unsafe sampling conditions. The purpose of this procedure is to estimate the concentration of HAP within the open biological treatment unit based on information obtained at inlet and outlet sampling locations in units that are not thoroughly mixed and, therefore, have different concentrations of HAP at different locations within the unit.

II. Definitions

Biological treatment unit = wastewater treatment unit designed and operated to promote the growth of bacteria to destroy organic materials in wastewater.

f_{bio} =The fraction of organic compounds in the wastewater biodegraded in a biological treatment unit.

Fe=The fraction of applicable organic compounds emitted from the wastewater to the atmosphere.

K1=First-order biodegradation rate constant, L/g mixed liquor volatile suspended solids (MLVSS)-hr

KL=Liquid-phase mass transfer coefficient, m/s

Ks=Monod biorate constant at half the maximum rate, g/m^3

III. Test Procedure for Determination of f_{bio} for Nonthoroughly Mixed Open Biological Treatment Units Under Unsafe Sampling Conditions

This test procedure is used under unsafe sampling conditions that do not permit practicable sampling of open biological treatment units within the unit itself, but rather relies on sampling at the inlet and outlet locations of the unit. This procedure may be used only under unsafe sampling conditions to estimate f_{bio}. Once the unsafe conditions have passed, then the formal compliance demonstration procedures of f_{bio} based upon measurements within the open biological treatment unit must be completed.

A. Overview of Estimation Procedure

The steps in the estimation procedure include data collection, the estimation of concentrations within the unit, and the use of Form 1 to estimate f_{bio}. The data collection procedure consists of two separate components. The first data collection component demonstrates that the open biological treatment unit can be represented by Monod kinetics and characterizes the effectiveness of the open biological treatment unit as part of the initial performance test, and the second data collection component is used when there are unsafe sampling conditions. These two data collection components are used together in a data calculation procedure based on a Monod kinetic model to estimate the concentrations in each zone of the open biological treatment unit. After the first two components of data collection are completed, the calculation procedures are used to back estimate the zone concentrations, starting with the last zone in the series and ending with the first zone.

B. Data Collection Requirements

This method is based upon modeling the nonthoroughly mixed open biological treatment unit as a series of well-mixed zones with internal recycling between the units and assuming that two Monod biological kinetic parameters can be used to characterize the biological removal rates in each unit. The data collection procedure consists of two separate components. The first data collection component is part of the initial performance test, and the second data collection component is used during unsafe sampling conditions.

1. Initial Performance Test

The objective of the first data collection component is to demonstrate that the open biological treatment unit can be represented by Monod kinetics and to characterize the performance of the open biological treatment unit. An appropriate value of the biorate constant, Ks, is determined using actual sampling data from the open biological treatment unit. This is done during the initial performance test when the open biological treatment unit is operating under normal conditions. This specific Ks value obtained during the initial performance test is used in the calculation procedure to characterize the open biological treatment unit during unsafe sampling conditions. The following open biological treatment unit characterization

information is obtained from the first component of the data collection procedure:

(1) The value of the biorate constant, Ks;

(2) The number and characteristics of each zone in the open biological treatment unit (depth, area, characterization parameters for surface aeration, submerged aeration rates, biomass concentration, concentrations of organic compounds, dissolved oxygen (DO), dissolved solids, temperature, and other relevant variables); and

(3) The recycle ratio of internal recirculation between the zones. The number of zones and the above characterization of the zones are also used to determine the performance of the unit under the unsafe sampling conditions of concern.

2. Data Collected Under Unsafe Sampling Conditions

In the second data collection component obtained under unsafe sampling conditions, the measured inlet and outlet HAP concentrations and the biomass concentration are obtained for the open biological treatment unit. After the site specific data collection is completed on the day a parameter excursion occurs, the inlet and outlet concentrations are used with the prior open biological treatment unit characterization to estimate the concentrations of HAP in each zone. The following information on the open biological treatment unit must be available in the second data collection component:

(1) Basic unit variables such as inlet and recycle wastewater flow rates, type of agitation, and operating conditions;

(2) The value of the inlet and outlet HAP concentrations; and

(3) The biomass concentration in the open biological treatment unit.

C. One Time Determination of a Single Value of Ks (Initial Performance Test)

A single value of Ks is calculated using Form 3 for each data set that is collected during the initial performance test. A single composite value of Ks, deemed to be representative of the biological unit, is subsequently selected so that the f_{bio} values calculated by the procedures in this appendix (using this single value of Ks) for the data sets collected during the initial performance test are within 10 percent of the f_{bio} value determined by using Form 1 with these same data sets. The value of Ks meeting these criteria is obtained by the following steps:

(1) Determine the median of the Ks values calculated for each data set;

(2) Estimate f_{bio} for each data set using the selected Ks value (Form 1 and Form 2);

(3) Calculate f_{bio} for each data set using Form 1; and

(4) Compare the f_{bio} values obtained in steps (2) and (3); if the f_{bio} value calculated using step (2) differs from that calculated using step (3) by more than 10 percent, adjust Ks (decrease Ks if the f_{bio} value is lower than that calculated by Form 1 and vice versa) and repeat this procedure starting at step (2). If a negative value is obtained for the values of Ks, then this negative kinetic constant may not be used with the Monod model. If a negative value of Ks is obtained, this test procedure cannot be used for evaluating the performance of the open biological treatment unit.

D. Confirmation of Monod Kinetics (Initial Performance Test)

(1) Confirmation that the unit can be represented by Monod kinetics is made by identifying the following two items:

(i) The zone methanol concentrations measured during the initial performance test; and

(ii) The zone methanol concentrations estimated by the Multiple Zone Concentrations Calculations Procedure based on inlet and outlet concentrations (Column A of Form 2). For each zone, the concentration in item 1 is compared to the concentration in item 2.

(2) For each zone, the estimated value of item 2 must be:

(i) Within 25 percent of item 1 when item 1 exceeds 8 mg/L; or

(ii) Within 2 mg/L of item 1 when item 1 is 8 mg/L or less.

(3) Successful demonstration that the calculated zone concentrations meet these criteria must be achieved for 80 percent of the performance test data sets.

(4) If negative values are obtained for the values of K1 and Ks, then these negative kinetic constants may not be used with the Monod model, even if the criteria are met. If negative values are obtained, this test procedure cannot be used for evaluating the performance of the open biological treatment unit.

E. Determination of KL for Each Zone (Unsafe Sampling Conditions)

(1) A site-specific liquid-phase mass transfer coefficient (KL) must be obtained for each zone during the unsafe sampling conditions. Do not use a default value for KL. The KL value for each zone must be based on the site-specific parameters of the specific unit. The first step in using this procedure is to calculate KL for each zone in the unit using Form 4. Form 4 outlines the procedure to follow for using mass transfer equations to determine KL. Form 4 identifies the appropriate form to use for providing the detailed calculations to support the estimate of the value of KL. Forms 5 and 6 are used to provide individual compound estimates of KL for quiescent and aerated impoundments, respectively. A computer model may be used to perform the calculations. If the WATER8 model or the most recent update to this model is used, then report the computer model input parameters that you used as an attachment to Form 4. In addition, the Bay Area Sewage Toxics Emission (BASTE) model, version 3.0, or equivalent upgrade and the TOXCHEM (Environment Canada's Wastewater Technology Centre and Environmega, Ltd.) model, version 1.10, or equivalent upgrade may also be used to determine KL for the open biological treatment unit with the following stipulations:

(i) The programs must be altered to output a KL value that is based on the site-specific parameters of the unit modeled; and

(ii) The Henry's law value listed in Form 4 must be substituted for the existing Henry's law values in the models.

(2) The Henry's law value listed in Form 4 may be obtained from the following sources:

(i) Values listed by EPA with temperature adjustment if needed;

(ii) Measured values for the system of concern with temperature adjustment; or

(iii) Literature values of Henry's law values for methanol, adjusted for temperature if needed.

(3) Input values used in the model and corresponding output values shall become part of the documentation of the f_{bio} determination. The owner or operator should be aware that these models may not provide equivalent KL values for some types of units. To obtain an equivalent KL value in this situation, the owner or operator shall either use the appropriate procedure on Form 4 or adjust the KL value from the model to the equivalent KL value as described on Form 4.

(4) Report the input parameters that you used in the computer model on Forms 5, 6, and 7 as an attachment to Form 4. If you have submerged air flow in your unit, you must add the value of KL estimated on Form 7 to the value of KL obtained with Forms 5 and 6 before using the value of KL with Form 2.

F. Estimation of Zone Concentrations (Unsafe Sampling Conditions)

Form 2 is used to estimate the zone concentrations of HAP based on the inlet and outlet data. The value of Ks entered on the form is that single composite value of Ks discussed in section III.C of this appendix. This value of Ks is calculated during the Initial Performance Test (and subsequently updated, if necessary). A unique value of the biorate K1 is entered on line 5 of Form 2, and the inlet concentration is estimated in Column A of Form 2. The inlet concentration is located in the row of Form 2 corresponding to zone 0. If there are three zones in the system, n–3 equals 0 for the inlet concentration row. These estimated zone concentrations are then used in Form 1 to estimate f bio for the treatment unit.

G. Quality Control/Quality Assurance (QA/QC)

A QA/QC plan outlining the procedures used to determine the measured inlet and outlet concentrations during unsafe conditions and how the zone characterization data were obtained during the initial performance test shall be prepared and submitted with the initial performance test report. The plan should include, but may not be limited to:

(1) A description of each of the sampling methods that were used (method, procedures, time, method to avoid losses during sampling and holding, and sampling procedures) including simplified schematic drawings;

(2) A description of how that biomass was sampled from the biotreatment unit, including methods, locations, and times;

(3) A description of what conditions (DO, temperature, etc.) are important, what the target values are in the zones, how the factors were controlled, and how they were monitored. These conditions are primarily used to establish that the conditions of the initial performance test correspond to the conditions of the day in question;

(4) A description of how each analytical measurement was conducted, including

preparation of solutions, dilution procedures, sampling procedures, monitoring of conditions, etc;

(5) A description of the analytical instrumentation used, how the instruments were calibrated, and a summary of the accuracy and precision for each instrument;

(6) A description of the test methods used to determine HAP concentrations and other measurements. Section 63.457(c)(3) specifies the test methods that must be used to determine HAP concentrations. During unsafe sampling conditions, you do not have to sample over an extended period of time or obtain more than one sample at each sample point.

(7) A description of how data are captured, recorded, and stored; and

(8) A description of the equations used and their solutions for sampling and analysis, including a reference to any software used for calculations and/or curve-fitting.

IV. Calculation of Individual f_{bio} (Unsafe Sampling Conditions)

Use Form 1 with your zone concentration information to estimate the value of f bio under unsafe sampling conditions. Form 1 uses measured concentrations of HAP in the unit inlet and outlet, and Form 1 also uses the estimated concentrations in each zone of the unit obtained from Form 2. This procedure may be used on an open biological treatment unit that has defined zones within the unit. Use Form 1 to determine f_{bio} for each open biological treatment unit as it exists under subpart S of part 63. The first step in using Form 1 is to calculate KL for each zone in the unit using Form 4. Form 7 must also be used if submerged aeration is used. After KL is determined using field data, obtain the concentrations of the HAP in each zone. In this alternative procedure for unsafe sampling conditions, the actual measured concentrations of the HAP in each zone are replaced with the zone concentrations that are estimated with Form 2. After KL and the zone concentrations are determined, Form 1 is used to estimate the overall unit Fe and f_{bio} for methanol.

BILLING CODE 6560–50–U

Form 1

DATA FORM FOR THE ESTIMATION OF MULTIPLE ZONE BIODEGRADATION FROM UNIT CONCENTRATIONS

NAME OF THE FACILITY for site specific biorate determination		
COMPOUND for site specific biorate determination		Methanol
Number of zones in the biological treatment unit	1	
VOLUME of full-scale system (cubic meters)	2	
Average DEPTH of the full-scale system (meters)	3	
FLOW RATE of wastewater treated in the unit (m3/s)	4	
Recycle flow of wastewater added to the unit, if any (m3/s)	5	
Concentration in the wastewater treated in the unit (mg/L)	6	
Concentration in the recycle flow, if any (mg/L)	7	
Concentration in the effluent (mg/L).	8	

TOTAL INLET FLOW (m3/s) line 4 plus the number on line 5	9	
TOTAL RESIDENCE TIME (s) line 2 divided by line 9.	10	
TOTAL AREA OF IMPOUNDMENT (m2) line 2 divided by line 3	11	

Zone number	Concentration for zone, Ci (mg/L)		Area of the zone, A (m2)	Estimate of KL in the zone (m/s) from Form 4		AIR STRIPPING KL A Ci (g/s)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
TOTALS sum for each zone.		12			13	

Removal by air stripping (g/s). Line 13.	14	
Loading in effluent (g/s). Line 8 times line 9.	15	
Total loading (g/s). (Line 5 * line 7) + (line 4* line 6).	16	
Removal by biodegradation (g/s) Line 16 minus (line 14 + line 15).	17	
Fraction biodegraded: Divide line 17 by line 16.	18	
Fraction air emissions: Divide line 14 by line 16.	19	
Fraction remaining in unit effluent: Divide line 15 by line 16.	20	

Form 2

DATA FORM FOR THE DETERMINATION OF ZONE CONCENTRATIONS FROM KS AND INLET/OUTLET DATA

COMPOUND for site specific biorates determination	Methanol	
Influent Flow (m^3/s)	1	
Inlet Concentration (g/m^3)	2	
Outlet Concentration (g/m3) - Use value from line 3 as Ci value in column A for final Zone (zone n) in table below	3	
Saturation Coefficient, Ks (g/m3) From Form 3	4	
Biorate K1 (1/s) - Estimate	5	
Number of Zones	6	

Adjust K1 value (line 5) until Column A, Row (n - line 6) is within +/- 5% of line 2.

Instructions for completion of table: (1) Transfer value from line 3 into row n, column A. (2) Enter data for all zones into columns B, D, E, G, H, & K. (3) Beginning with row n, perform calculations for columns F, I, J, L, M, N, & O for that zone only. (4) Calculate row n-1, column A using results from previous row (i.e., J_{i-1}, M_{i-1}, N_{i-1}). (5) Repeat steps (3) and (4) until a row of calculations has been completed for each zone. (6) row n - line 6, column A is the calculated inlet concentration.

	A	B	C	D	E	F	G	H
Zone Number	Ci $(J_{i-1} + N_{i-1})/O_{i-1}$ g/m^3	Temp C	(1.045)^(B-25)	biomass g/m^3	Volume m^3	line 5 * A*C*D *E/(line 4+ A) g/s	KL m/s	Area m^2
n								
n-1								
n-2								
n-3								
n-4								

	I	J	K	L	M	N	O
Zone Number	A*G*H g/s	Reaction F+I g/s	Backmix BM_i	$(1+BM_i+BM_{i+1})$ $*C_i$*line 1 g/s	$BM_{i+1} * C_{i+1}$ *line1 g/s	Flux L-M g/s	$(1+BM_i) *$ line1 g/s
n							
n-1							
n-2							
n-3							
n-4							

The backmix ratio, Bmi, is the ratio of (the return flow from the zone back to the upstream zone) to (the total inlet flow into the unit). This approach assumes that the flow is sequential through the different zones.

Form 3

DATA FORM FOR THE DETERMINATION OF MONOD CONSTANTS FROM ZONE CONCENTRATIONS WITH BACKMIXING

COMPOUND for site specific biorates determination	Methanol	
Total Inlet Flow (m3/s)	1	
Inlet Concentration (g/m3) - Use value from line 2 as Ci-1 value in column D for Zone 1 in table below	2	

	A	B	C	D	E	F	G	H
Zone Number	Ci g/m^3	Backmix (BM_i)	$(1+BM_i+BM_{i+1})*C_i$ g/m^3	$(1+BM_i)*C_{i-1}$	$BM_{i+1} * C_{i+1}$ g/m^3	KL m/s	Area m^2	A*F*G g/s
1								
2								
3								
4								
5								

	I	J	K	L	M	N	O
Zone Number	Volume m3	Temp C	(1.045)^(J-25)	biomass g/m^3	I*K*L gm	M/[line 1*(D+E-C)-H] s	1/A m^3/g
1							
2							
3							
4							
5							

Plot values in column N on y axis, and values in column O on x axis, up to, and including first row where Ci is equal to MDL or to last zone.

Y intercept from plot. (g-s/m3)	3	
K1 (1/s). 1/line 3	4	
Slope of line	5	
Ks (g/m3). Line 5 times line 4	6	

The backmix ratio, Bmi, is the ratio of (the return flow from the zone back to the upstream zone) to (the total inlet flow into the unit). This approach assumes that the flow is sequential through the different zones.

Form 4

PROCEDURES FORM FOR THE ESTIMATION OF THE KL FROM UNIT SPECIFICATIONS

NAME OF THE FACILITY for site specific biorate determination	
NAME OF UNIT for site specific biorate determination	
NAME OF COMPOUND	Methanol
HENRY'S LAW constant for the compound (mole fraction in gas per mole fraction in water at 25 degrees Celsius)	

IDENTIFY THE TYPE OF UNIT (check one box below)

Quiescent impoundment	1	
Surface agitated impoundment	2	
Surface agitated impoundment with submerged air present	3	
Unit with submerged aeration gas	4	

PROCEDURES BASED UPON THE TYPE OF UNIT

1. Use Form 5 to determine KL for the surface of the quiescent impoundment.
2. Use Form 5 to determine KL for the surface of the quiescent part of the impoundment. Use Form 6 to determine KL for the part of the surface that is agitated, then complete Form 6 with Kq as determined from Form 5.
3. Use Form 5 to determine KL for the surface of the quiescent part of the impoundment. Use Form 6 to determine KL for the part of the surface that is agitated, then complete Form 6 with Kq as determined from Form 5. The total system KL is the sum of the KL from the completed Form 6 and the equivalent KL from Form 7.
4. Evaluate the fraction of the surface that is agitated and the extent of the aeration. Use Form 5 to determine KL for the quiescent part of the surface of the impoundment. Use Form 6 to determine KL for the part of the surface that is agitated, then complete Form 6 with Kq as determined from Form 5. The total system KL is the sum of the KL from the completed Form 6 and the equivalent KL from Form 7. See section 5.6.1 in the document Air Emission Models for Waste and Wastewater.

Estimate of surface KL obtained from above procedures (m/s)	5	
If the submerged aeration is present, the equivalent KL from Form 7	6	
The total KL is the sum of line 5 and line 6.	7	

Form 5

FORM FOR CALCULATING THE MASS TRANSFER COEFFICIENT FOR A QUIESCENT SURFACE IMPOUNDMENT

FACILITY NAME for site specific biorate determination	
COMPOUND for site specific biorate determination	Methanol

Input values

Enter the following:	
F - Impoundment fetch (m)	
D - Impoundment depth (m)	
U10 - Windspeed 10 m above liquid surface (m/s)	
Dw - Diffusivity of compound in water (cm2/s)	
Dether - Diffusivity of ether in water (cm2/s)	
μG - Viscosity of air, (g/cm-s)	
G - Density of air, (g/cm3)	
Da - Diffusivity of compound in air, (cm2/s)	
A - Area of impoundment, (m2)	
H - Henry's law constant, (atm-m3/g mol)	
R - Universal gas constant, (atm-m3/g mol. K)	
μL - Viscosity of water, (g/cm-s)	
L - Density of liquid, (g/cm3)	
T - Impoundment temperature, (C)	

Calculate the following:

Calculate F/D:

Calculate the liquid phase mass transfer coefficient, kL, using one of the following procedures, (m/s)

Where F/D < 14 and U10 > 3.25 m/s, use the following procedure from MacKay and Yeun:

Calculate the Schmidt number on the liquid side, ScL, as follows:
ScL = μL/ LDw

Calculate the friction velocity, U*, as follows, (m/s):
U* = 0.01 x U10(6.1 + 0.63 U10)^0.5

Where U* is > 0.3, calculate kL as follows:
kL = (1.0 x 10^-6) + (34.1 x 10^-4)U* x ScL^-0.5

Where U* is < 0.3, calculate kL as follows:
kL = (1.0 x 10^-6) + (144 x 10^-4)(U*)^2.2 x ScL^-0.5

For all other values of F/D and U10, calculate kL using the following procedure from 2Springer:

Where U10 is < 3.25 m/s, calculate kL as follows:

Form 5

kL = 2.78 x 10^-6(Dw/Dether)^2/3

Where U10 is > 3.25 and 14 < F/D < 51.2, Calculate kL as follows:
kL = [2.605 x 10^-9(F/D) + 1.277 x 10^-7] U10^2 (Dw/Dether)^2/3

Where U10 > 3.25 m/s and F/D > 51.2, calculate kL as follows:
kL = (2.611 x 10^-7)U10^2 (Dw/Dether)^2/3

B. Calculate the gas phase mass transfer coefficient, kG, using the following procedure from MacKay and Matsasugu, (m/s):

Calculate the Schmidt number on the gas side, ScG, as follows: ScG =μG/ GDa

Calculate the effective diameter of the impoundment, de, as follows, (m):
de = (4A/3.14)^0.5

Calculate kG as follows, (m/s): kG = 4.82 x 10^-3 U10^.78 ScG^-0.67 de^-0.11

C. Calculate the partition coefficient, Keq, as follows: Keq = H/[R(T+273)]

D. Calculate the overall mass transfer coefficient, Kq, as follows, (m/s):
1/Kq = 1/kL + 1/(Keq-kG)

Where the total impoundment surface is quiescent:
KL = Kq

Where a portion of the impoundment surface is turbulent, continue with Form 6.

Form 6

DATA FORM FOR CALCULATING THE MASS TRANSFER COEFFICIENT FOR AN AERATED SURFACE IMPOUNDMENT

Facility Name:	
Waste Stream Compound:	Methanol

Enter the following:

J - Oxygen transfer rating of surface aerator, (lb O2/hr-hp)	
POWR - Total power to aerators, (hp)	
T - Water temperature, (C)	
Ot - Oxygen transfer correction factor	
MWL - Molecular weight of liquid	
At - Turbulent surface area of impoundment, (ft2)	
(If unknown, use values from Table 1)	
A - Total surface area of impoundment, (ft2)	
rhoL - Density of liquid, (lb/ft3)	
Dw - Diffusivity of constituent in water, (cm2/s)	
Do - Diffusivity of oxygen in water, (cm2/s)	
d - Impeller diameter, (cm)	
w - Rotational speed of impeller, (rad/s)	
a - Density of air, (gm/cm3)	
N - Number of aerators	
gc - Gravitation constant, (lbm-ft/s2/lbf)	
d* - Impeller diameter, (ft)	
Da - Diffusivity of constituent in air, (cm2/s)	
MWa - Molecular weight of air	
R - Universal gas constant, (atm-m3/g mol. C)	
H = Henry's law constant, (atm-m3/g mol)	

Calculate the following:

A. Calculate the liquid phase mass transfer coefficient, kL, using the following Equation from Thibodeaux:,

kL =[8.22 x 10^-9 J (POWR)(1.024)^(T-20) Ot 10^6 MWL/(At x rhoL/62.37)] (Dw/Do)^0.5, (m/s) | |

B. Calculate the gas phase mass transfer coefficient, kG, using the following procedure from Reinhardt:,

Calculate the viscosity of air, μa, as follows, (g/cm.s):
μa = 4.568 x 10^-7 T + 1.7209 x 10^-4 | |

Calculate the Reynold's number as follows:
Re = d^2 w a/μa | |

Calculate power to impeller, PI, as follows, (ft.lbf/s):
PI = 0.85 (POWR) 550/N | |

Form 6

Calculate the power number, p, as follows:
p = PI gc/(rhoL d^5 w^3)

Calculate the Schmidt number, ScG, as follows:
ScG = μa/ (a Da)

Calculate the Fronde number, Fr, as follows:
Fr = d*w^2/gc

Calculate kG as follows:
kG = 1.35 x 10^-7 Re ^1.42 p^0.4 ScG^0.5 Fr^-0.21 Da MWa/d, (m/s)

C. Calculate the partition coefficient, Keq, as follows:
Keq = H/[R(T+273)]

D. Calculate the overall turbulent mass transfer coefficient, Kt, as follows, (m/s):
1/Kt = 1/kL + 1/(Keq*kG)

E. Calculate the quiescent mass transfer coefficient, Kq, for the impoundment using Form 5.

F. Calculate the overall mass transfer coefficient, KL, for the impoundment as follows:
KL = (A-At)/A *Kq + At*Kt/A

Form 6 Table 1

PROCEDURES FORM FOR THE ESTIMATION OF THE KL FROM WATER8 a.b

Motor horsepower	At, Turbulent area,		Effective depth	V, Agitated volume	aV, Area per volume
hp	ft2	m2	ft	ft3	ft2/ft3
5	177	16.4	10	1,767	0.1002
7.5	201	18.7	10	2,010	0.1000
10	227	21	10.5	2,383	0.0953
15	284	26.4	11	3,119	0.0911
20	346	32.1	11.5	3,983	0.0869
25	415	38.6	12	4,986	0.0832
30	491	45.7	12	5,890	0.0834
40	661	61.4	13	8,587	0.0770
50	855	79.5	14	11,970	0.0714
60	1075	100	15	16,130	0.0666
75	1452	135	16	23,240	0.0625
100	2206	205	18	39,710	0.0556

a Data for a high speed (1,200) rpm) aerator with 60 cm propeller diameter (d).
b This table provides information potentially useful for the value of At.

Form 7

DATA FORM FOR THE ESTIMATION OF THE EQUIVALENT KL FROM AIR STRIPPING DUE TO SUBMERGED AERATION.

NAME OF THE FACILITY for site specific biorate determination	
COMPOUND for site specific biorate determination	Methanol
1 VENT RATE of total gas leaving the unit (G, m3/s)	
2 TEMPERATURE of the liquid in the unit (deg. C)	
3 ESTIMATE OF Henry's law constant (H, g/m3 in gas / g/m3 in liquid). Corrected for the temperature on line 2.	
4 AREA OF REACTOR (m2)	

CALCULATION OF THE ESTIMATE OF EQUIVALENT KL

5 [H G] ESTIMATE (m3/s) Multiply the number on line 1 by the number on line 3. Enter the results here.	
6 EQUIVALENT KL. Divide the number on line 5 by the number on line 4. Enter the results on line 6.	

[FR Doc. 00–32028 Filed 12–21–00; 8:45 am]
BILLING CODE 6560–50–C

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 50

[FRL–6919–5]

RIN 2060–AJ05

National Primary and Secondary Ambient Air Quality Standards for Particulate Matter

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is taking final action to remove requirements relative to the revised PM–10 NAAQS EPA issued in 1997 that were intended to clarify the applicability of the PM–10 National Ambient Air Quality Standards (NAAQS) issued in 1987 (hereafter referred to as the pre-existing PM–10 NAAQS). These requirements were added to the CFR at that time in anticipation of the transition to the implementation of the revised PM–10 NAAQS, and set forth the criteria under which the pre-existing PM–10 NAAQS would cease to apply and the revised PM–10 NAAQS would then become the solely applicable coarse particle standards. However, a recent ruling of the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated the revised PM–10 NAAQS and, thus, removed the basis for these requirements. Therefore, today we are taking final action to remove the requirements from the subsection of the CFR where they are found, thus ensuring that the pre-existing PM–10 standards will continue to apply to all areas where they currently apply. In light of the action taken by the D.C. Circuit, as well as the need from a regulatory and administrative perspective to clarify the status of the pre-existing PM–10 NAAQS, we had previously proposed to remove these requirements as part of our June 26, 2000 proposal ''Rescinding the Finding that the Pre-existing PM–10 Standards are No Longer Applicable in Northern Ada County/Boise, Idaho.'' We have not received any comments on this portion of that proposal to date and are therefore moving forward today to take final action to remove them.

DATES: This rule will become effective January 22, 2001.

FOR FURTHER INFORMATION CONTACT: Questions about this action should be addressed to Gary Blais, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, Integrated Policy and Strategies Group, MD–15, Research Triangle Park, NC 27711, telephone (919) 541–3223 or e-mail to blais.gary@epa.gov.

Public inspection. You may read the final rule at the Office of Air and Radiation Docket and Information Center located at 401 M Street, SW, Washington, DC 20460. It is available for public inspection from 8:00 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays. A reasonable fee may be charged for copying.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background

A. What Was the Basis for EPA's Previous Rulemaking Actions Finding That the Pre-existing PM–10 Standards No Longer Apply?

On July 18, 1997 (62 FR 38856), we issued a regulation replacing the pre-existing PM–10 NAAQS with revised PM–10 NAAQS, along with new NAAQS for fine particulate matter (PM–2.5). Together, these new standards, which became effective on September 16, 1997, were issued to provide increased protection to the public,