Chapter 173-410 WAC Sulfite Pulping Mills Last Update: 2/19/91

WAC Sections

WAC 173-410-012 Statement of purpose.

These rules are enacted under the provisions of the Washington Clean Air Act as amended (RCW 70.94.395) to:

(1) Assume state jurisdiction over emissions from sulfite pulping mills to provide for the systematic control of air pollution in this industry and for the proper development of the state's natural resources; and

(2) Establish technically feasible and reasonably attainable standards and revise such standards as new information and better technology are developed and become available.

WAC 173-410-021 Definitions.

The definitions of terms contained in chapter 173-400 WAC are incorporated into this chapter by reference. Unless a different meaning is clearly required by context, the following words and phrases as used in this chapter, shall have the following meanings:

(1) "Acid plant" means the facility in which the cooking liquor is either manufactured or fortified when not associated with a recovery system.

(2) "Average daily emission" means total weight of an air contaminant emitted in each month, divided by the number of days of production that month.

(3) "Average daily production" means air dried tons of unbleached pulp produced in a month, divided by the number of days of production in that month.

(4) "Blow system" includes the storage chest, tank or pit to which the digester pulp is discharged following the cook.

(5) "Ecology" means the department of ecology

(6) "Recovery system" means the process by which all or part of the cooking chemicals may be recovered, and cooking liquor regenerated from spent cooking liquor, including evaporation, combustion, dissolving, fortification, storage facilities, and emission control equipment associated with the recovery cycle.

(7) "Sulfite pulping mill" means any manufacturing facility which uses a cooking liquor consisting of sulfurous acid, a sulfite or bisulfite salt alone or in any combination, with or without additional mechanical refining or delignification to produce pulp, pulp products or cellulose from wood fibers. For the purposes of this regulation "sulfite pulping mill" is equivalent to "source."

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WAC 173-410-035 Emission standards for sources emitting hazardous air pollutants.
The provisions of WAC 173-400-075 "Emission standards for sources emitting hazardous air pollutants" shall apply to all sources to which this chapter is applicable.

WAC 173-410-040 Emission standards.
In addition to the general applicability of chapters 173-400 and 173-490 WAC to all emission sources; no sulfite pulping mill shall cause or permit air contaminant emissions in excess of the limits listed below. Specific emission standards listed in this chapter will take precedence over the general emission standards of chapter 173-400 WAC.

(1) Sulfur dioxide.

(a) The total average daily emissions from a sulfite pulping mill, or a portion of a sulfite pulping mill which practices incineration of the spent sulfite liquor, shall not exceed ten grams of sulfur dioxide per kilogram (twenty pounds per ton) of air dried, unbleached pulp produced.

(b) The total average daily emissions from a sulfite pulping mill, or a portion of a sulfite pulping mill that does not incinerate the spent sulfite liquor, shall not exceed two grams of sulfur dioxide per kilogram (four pounds per ton) of air dried, unbleached pulp produced.

Commented [SC(1]: We can leave this in just in case we need it.

(c) The blow system emissions shall not exceed 0.1 grams of sulfur dioxide per minute, on a fifteen minute average, per kilogram (0.2 pounds per ton) of air dried, unbleached pulp discharged from the digester.

(d) Emissions from the recovery system and acid plant shall not exceed 800 ppm of sulfur dioxide for any hourly average.

(e) Emissions from recovery systems constructed after January 24, 1972, shall not exceed 300 ppm of sulfur dioxide for any hourly average.

(f) Emissions from any emissions unit, other than a recovery system, a blow system or an acid plant, shall not exceed 1000 ppm of sulfur dioxide, corrected to seven percent oxygen in the case of combustion unit, for any hourly average.

(2) Particulate.

(a) Emissions of particulate from recovery systems constructed before January 24, 1972, shall not exceed 0.23 grams per dry cubic meter of exhaust at standard conditions (0.10 grains/dscf) corrected to eight percent oxygen.

(b) Emissions of particulate matter from recovery systems constructed after January 24, 1972, shall not exceed 0.14 grams per dry cubic meter of exhaust at standard conditions (0.06 grains/dscf) corrected to eight percent oxygen.

(c) The emission of particulates from emissions units other than acid plants or recovery systems shall not exceed the following maximums:

(i) 0.46 grams per dry cubic meter at standard conditions (0.2 grains/dscf) corrected to seven percent oxygen, for units which combust wood and wood residue to produce steam and which commenced construction prior to January 1, 1983.

(ii) 0.12 grams per dry cubic meter at standard conditions (0.05 grains/dscf) corrected to seven percent oxygen, for units which combust fuel other than

wood and wood residue to produce steam, and which commenced construction after January 1, 1983.

(iii) 0.23 grams per dry cubic meter at standard conditions (0.1 grains/dscf) corrected to seven percent oxygen in the case of combustion units, for units not classified under (c) (i) or (ii) of this subsection.

(3) Opacity. No person shall cause or allow the emission of a plume from a recovery system or acid plant which has an average opacity greater than thirty-five percent, for more than six consecutive minutes in any sixty minute period~~, except as allowed per RCW 70.94.331 (2)(c)~~.

Commented [GE(2]: Propose to delete because it's an unnecessary provision. The cited statute provides Ecology authority to adopt rules so whether or not this provision remains, we can always adopt rules to protect air quality.

(4) Operation and maintenance. At all times, including periods of abnormal operations and upset conditions, owners and operators shall, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to ecology which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(5) No recovery system shall emit total reduced sulfur (TRS) gases in excess of 17.5 ppm for a daily average.

(6) More restrictive limits. Ecology may set more restrictive emissions limits than the specific limits set in this chapter (after public involvement and hearing), if there is reason to believe that the emission(s) from a source is a cause of public nuisance or a cause of violation of ambient air quality standards. The source shall, within ninety days from notification of the more restrictive limits, achieve operation that will prevent further recurrence of the nuisance or violation.

(7) Source testing. To demonstrate compliance with this chapter, the provisions of WAC 173-400-105 shall apply to all sources to which this chapter is applicable.

(8) Alternative emission limitation. An owner or operator may request an alternative emission limitation (as defined in WAC 173-400-030) under~~:~~

(a) WAC 173-400-081 for an action covered under a notice of construction application; or

(b) WAC 173-400-082 for a permit modification.

Commented [SC(3]: Align with SSM provisions in 400.

WAC 173-410-045 Creditable stack height and dispersion techniques.
The provisions of WAC 173-400-200 shall apply to all sources to which this chapter is applicable.

WAC 173-410-062 Monitoring requirements.

Each mill shall conduct routine monitoring of emissions in accordance with a program that has been approved by ecology. Results of monitoring shall be reported within fifteen days of the end of each calendar month and shall include data as follows:

(1) For the recovery system and acid plant:
  (a) The average daily emissions of sulfur dioxide expressed as grams SO2 per kilogram of air dried, unbleached pulp produced and the kilograms of SO2 per day.
  (b) Daily average concentration of sulfur dioxide.
  (c) The date, time and concentration for each sulfur dioxide emission violation and the total number of hours that exceed the standard.
  (d) The results of particulate tests conducted during the month.

(2) For the blow system:
  (a) The grams of sulfur dioxide per minute, on a fifteen minute average, per kilogram of air dried, unbleached pulp discharged from the digester.
  (b) The average daily production of air dried, unbleached pulp.

(3) Each mill shall furnish, upon request of ecology, such other pertinent data required to evaluate the mill's emission control program.

(4) All measurements shall be made in accordance with WAC 173-400-105.

(5) Each mill shall be required to establish a program approved by ecology for continuous opacity monitoring to demonstrate compliance with WAC 173-410-040(3) and to report the results to ecology in a format and on a schedule set by regulatory order. If equipment for continuous monitoring of opacity is not available, continuous monitoring of operating parameters may be required as an alternate until continuous opacity monitoring equipment is available.

WAC 173-410-067 Report of startup, shutdown, ~~breakdown or upset~~ or malfunction conditions.
The provisions of WAC 173-400-107, 108 and 109~~173-400-105(5)~~ shall apply to all sources to which this chapter is applicable.
NOTE: WAC 173-400-107 is in effect until the effective date of EPA's removal from the SIP.

Commented [SC(4]: Align with SSM provisions in 400.

WAC 173-410-071 Emission inventory.
The provisions of WAC 173-400-105(1) shall apply to all sources to which this chapter is applicable.

WAC 173-410-086 New source review (NSR).
The provisions of WAC 173-400-110 through 114 shall apply to all new sources and emissions units to which this chapter is applicable.

Commented [SC(5]: Correct outdated reference.

WAC 173-410-087 Prevention of significant deterioration (PSD).
The provisions of WAC **173-400-700 through 750**~~173-400-141~~ shall apply to all new major

Commented [SC(6]: Correct outdated reference.

WAC 173-410-100 Special studies.
Ecology may require such additional special studies relevant to process emissions and establish completion dates as it finds necessary.