



Overview of the Pulp & Paper Risk and Technology Review Proposal (Subpart S)

Public Outreach Presentation

U.S. Environmental Protection Agency
Office of Air Quality Planning and Standards
Research Triangle Park, NC

Purpose

- ▶ Today's webinar is part of EPA's overall outreach strategy to stakeholders; today, we will:
 - ▶ Provide background information on the rulemaking process
 - ▶ Inform the public on the Pulp & Paper Risk and Technology Review (RTR) rule that was proposed on December 15, 2011
 - ▶ Describe how written comments can be submitted to the docket
- ▶ Note: We will ***not*** be taking comments on the rule during this webinar. This webinar is intended to be an educational overview of the proposal and does not cover all of the proposal details. We recommend referring back to the proposal when crafting your written comment.

Overview

- ▶ Clean Air Act Requirements
- ▶ Overview of Pulp & Paper Industry
 - ▶ Past Rulemakings
 - ▶ Risk Assessment & Health Effects
 - ▶ What is Environmental Justice?
 - ▶ Demographic Analyses
 - ▶ Overview of the Proposed Rule
- ▶ How to Submit Comments to the Docket
 - ▶ What Happens After I Comment?
- ▶ Q and A

Clean Air Act Requirements

- ▶ Air Toxics Rules: Maximum Achievable Control Technology (MACT) and Residual Risk and Technology Reviews (RTR)
 - ▶ The Clean Air Act requires EPA to set emission standards for toxic air pollutants from stationary sources based on the best performing facilities in an industry with a maximum achievable control technology (MACT) rule
 - ▶ The Act sets different requirements for large (major) and smaller (area) sources of toxics. All facilities making pulp and paper in the U.S. are major sources. The smaller plants making only paper are frequently area sources.

Clean Air Act Requirements (cont.)

- ▶ EPA is required to conduct two reviews and update the existing standards, if necessary
 - ▶ **Residual Risk Assessment:** To determine whether additional emission reductions are warranted to protect public health or the environment; this is a one-time requirement
 - ▶ **Technology Reviews:** To determine if better emission control approaches, practices or processes are now available; required every eight years

Industry Overview

Pollutant	Sector Emissions (tons/yr) (includes boilers)
HAP	63,400
VOCs	82,000
NO _x	69,000
PM _{2.5}	50,000
SO ₂	332,000
CO	135,000

- ▶ About 350 Pulp & Paper Mills
 - ▶ 175 major sources subject to MACT; typical example: an integrated Kraft mill making both pulp and paper
 - ▶ 175 area sources not subject to MACT, typical example: makes paper only from purchased pulp
- ▶ \$115 billion in sales; 400,000 direct jobs
- ▶ 79 million tons of paper produced in 2008, 18% decrease from 1999 peak

Source: EPA 2005
National Emissions Inventory

Pulp & Paper Mill Locations



Past Rulemakings on Pulp & Paper

- ▶ Two MACT Rules for the Industry
 - ▶ Original rules reduced air toxic emissions from 230,000 tons/year to 45,160 tons/year
 - ▶ 1. Original Pulp & Papermaking MACT (1998)
 - The proposal is an RTR review of this MACT rule
 - ▶ For pulping, bleaching and papermaking; focus is organic toxics
 - ▶ 2. Original Chemical Recovery MACT (2001)
 - RTR will follow the current rulemaking effort
 - ▶ For recovery furnaces and lime kilns; focus is particulate toxics
- ▶ Kraft Pulping New Source Performance Std. (NSPS)
 - ▶ Last reviewed in 1986, next review being planned
 - ▶ Regulates criteria air pollutants

One category - many emission sources



Counterclockwise from top left: chip pile, debarking drum, digester blow tank, pulp bleaching, paper machine, evaporators, lime kiln, recovery furnace, aeration stabilization basin, clarifiers

Evaluating Risk and Community Impact

▶ Risk Review

- ▶ Evaluate the risk from breathing air toxics to the communities near Pulp & Paper facilities
- ▶ The Maximum Individual Cancer Risk (MIR) is one factor in determining whether the risk level is acceptable
 - ▶ Considered along with other factors, such as incidence (number of persons suffering health effects), presence of non-cancer health effects and the uncertainties of the risk estimates
- ▶ EPA will generally presume that if the MIR for cancer is less than 1 in 1 million the risk level is acceptable
- ▶ If MIR is greater than 100 in 1 million, risks are generally considered “unacceptable”

▶ Community Impacts

- ▶ Beyond the CAA requirements, EPA will identify potential Environmental Justice issues, as directed by Executive Order 12898

Pulp & Paper Risk Review

- ▶ We have conducted risk assessments to determine the public cancer and non-cancer risks from each facility
 - ▶ Found the toxic emission health impact following the application of MACT controls in the Pulp and Paper category to be acceptable
- ▶ The Draft Risk Assessment issued with the proposal had the following conclusions regarding this source category
 - ▶ MIR based on actual emissions is 10 in a million
 - ▶ MIR based on allowable emissions is 10 in a million
 - ▶ 76,000 people have risks of one in a million or more

Regulatory Options: Technology Review

▶ Kraft Condensate Standards

- ▶ Address organic toxics that precipitate out during the collection of gaseous emissions during pulping
- ▶ Current standard: 92% emission control (reduction)
- ▶ Evaluated options between 92-98% control
- ▶ Options beyond 94% become cost prohibitive
- ▶ Proposed 94% control

▶ Kraft Vent Standards

- ▶ Address organic toxic gas emissions from pulping and bleaching
- ▶ Current Standard: 98+% control
- ▶ Further controls not found cost effective
- ▶ No changes proposed

Pulp & Paper Technology Review

- ▶ This action proposes:
 - ▶ To revise the standard for Kraft pulping process condensates, based on advancements in technology
 - ▶ To reduce emissions of Kraft condensate toxic air pollutants by raising control efficiency from 92% to 94% (~ 4.1 tons/year)
 - ▶ To eliminate provisions that created exemptions from the standard during periods of startup, shutdown and malfunction (SSM) and incorporation of affirmative defense language
 - ▶ To require compliance testing as part each permit review cycle rather than a one-time only test
 - ▶ To require electronic reporting, which will improve public access to emissions data and reduce the data reporting burden

What is Environmental Justice?

- ▶ EPA defines Environmental Justice (EJ) as, “the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies”
- ▶ The *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population [E.O. 12898]* was signed by President Clinton on February 16, 1994, and calls for federal agencies, “to the greatest extent practicable and permitted by law, to identify...and address...as appropriate, disproportionately high and adverse human health or environmental effects of agency programs, policies and actions on minority populations and low income populations”

Demographic Analysis

- ▶ To determine potential EJ issues, demographic analyses of the minority, low-income and indigenous populations were conducted
- ▶ Percentages of different social, demographic and economic groups within populations living near the facilities were compared with total percentages of demographic groups nationwide
 - ▶ Demographics of those living near facilities similar to national averages

DEMOGRAPHIC SUMMARY	POPULATION	WHITE	MINORITY	AFRICAN AMERICAN	HISPANIC OR LATINO	NATIVE AMERICAN	BELOW POVERTY LINE
NEAR SOURCE TOTAL	2,437,688	1,929,157	508,531	365,077	78,804	20,449	353,183
% OF NEAR SOURCE TOTAL		79%	21%	15%	3%	1%	14%
NATIONAL TOTAL	214,539,706	35,043,873	70,799,422	35,043,873	39,083,760	2,489,515	37,181,029
% OF NATIONAL TOTAL		75%	25%	12%	14%	1%	13%

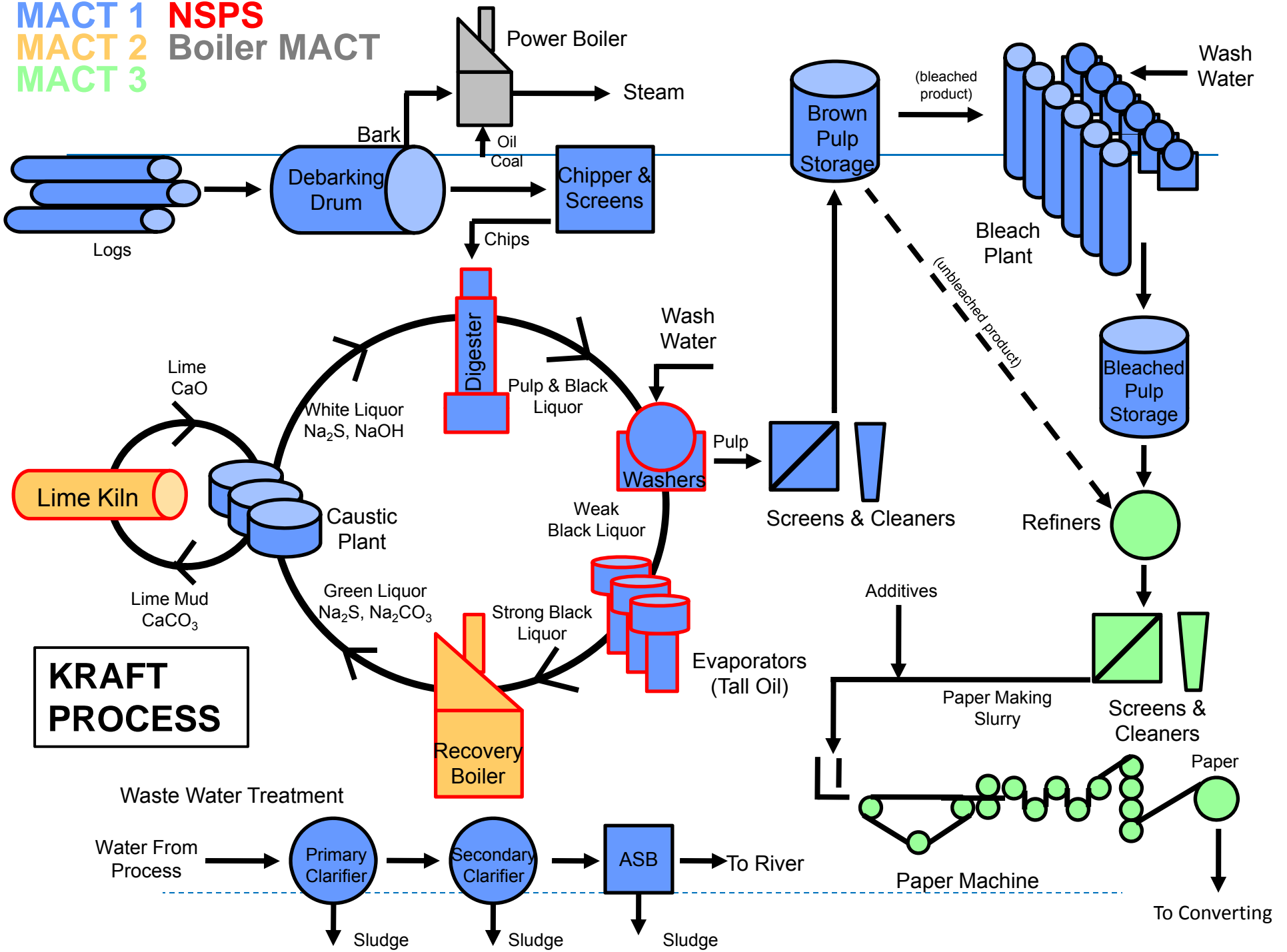
How to Submit Comment to the Docket?

- ▶ To download the proposed rule before it's published in the *Federal Register* (FR) go to <http://www.epa.gov/ttn/atw/rrisk/rtrpg.html>
- ▶ It takes about 2 weeks after the rule is signed by the Administrator for the rule to be published in the FR
- ▶ The public comment period will conclude 60 days from when the rule was published in the FR; closing date is February 27, 2012
- ▶ This information can be found in the Fact Sheet (http://www.epa.gov/ttn/oarpg/t3/fact_sheets/PulpRTRpropfs.pdf)
- ▶ Comments may be submitted by one of the following methods
 - ▶ Via U.S. Postal Service: EPA, Mail Code 2822T, 1200 Pennsylvania Ave., NW, Washington, DC 20460 (send 2 copies)
 - ▶ Via fax: 202-566-9744
 - ▶ Via email: www.epa.gov/oar/docket.html, or A-and-r-docket@epa.gov
 - ▶ In person: EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW. Washington DC 20460
 - ▶ Online: www.regulations.gov. Highlight "submit a comment" and add the docket (ID) number, EPA-HQ-OAR-2007-0544

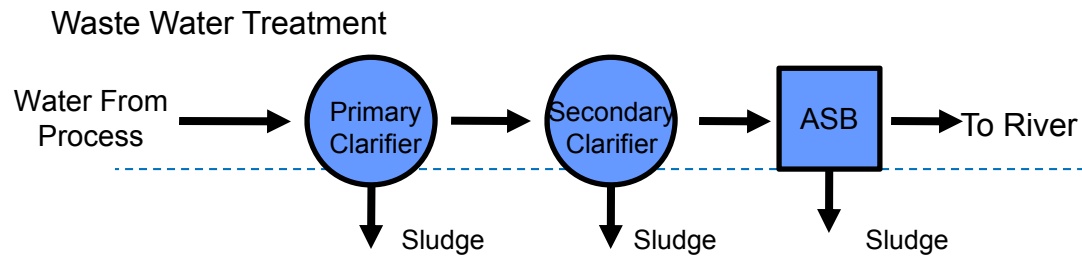
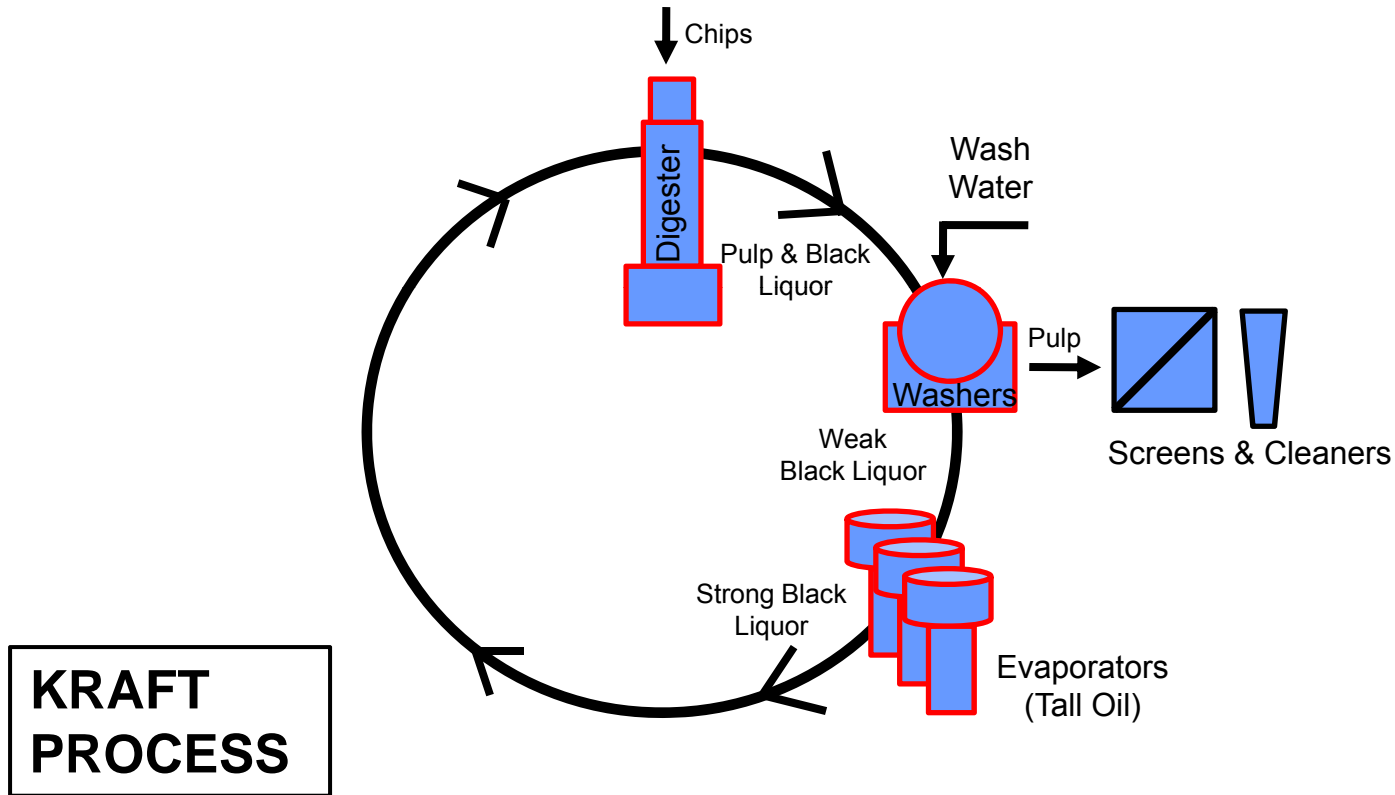
What Happens After I Comment?

- ▶ After the comment period closes, EPA will review every comment that was submitted on time
- ▶ Taking those comments into consideration, EPA will begin to develop the final rule (per a court order, the final rule needs to be signed by the EPA Administrator by July 31, 2012)
- ▶ EPA will prepare a “Response to Comments” document that describes how our final rule either:
 - ▶ Takes the comment into account, or
 - ▶ Why we were unable to take the comment into account
- ▶ For more information
 - ▶ Contacts: William Schrock of EPA's Office of Air Quality Planning and Standards at (919) 541-5032, shrock.bill@epa.gov; or John Bradfield at (919) 541-3062, bradfield.john@epa.gov

MACT 1 **NSPS**
MACT 2 **Boiler MACT**
MACT 3



MACT 1 NSPS
MACT 2 Boiler MACT
MACT 3



Q&A
