



Jefferson Smurfit Corporation

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Containerboard Mill Division
1915 Wigmore Street
P.O. Box 150
Jacksonville, FL 32201

Certified Mail – Return Receipt Requested

May 13, 1999

Mr. Clair H. Fancy, P.E.
Chief, Air Regulation
Division of Air Resource Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Jefferson Smurfit Corporation (U.S.)
Jacksonville Paperboard Mill
112(j) Case-by-Case MACT Application
Facility ID No.: 0310003

Dear Mr. Fancy:

Enclosed is a protective application under Section 112(j) of the Federal Clean Air Act for those sources at our mill covered by U.S. EPA's April 15, 1998 proposed MACT requirements for emissions of hazardous air pollutants ("HAPs") from pulp mill chemical recovery combustion sources – for kraft mills, these are recovery boilers, smelt dissolving tanks, and lime kilns ("MACT II")(63 Fed. Reg. 18754, et seq.). As explained below, we are submitting this application as a precautionary measure in the event that it is determined that there is a May 15 application deadline. This application may be withdrawn, amended, or supplemented at any time.

In its April 15, 1998 proposal, EPA determined that for existing MACT II sources only particulate HAP metals (as determined by EPA Method 29) required control. Mills with MACT II sources were given the option of controlling either particulate or metals and could also opt for a compliance "bubble." At the same time, EPA published final MACT rules for certain other pulp and paper mill sources and determined for still others that no control of hazardous air pollutants was justified. (63 Fed. Reg. 18,504, et seq.)

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**BUREAU OF
AIR REGULATION**

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Section 112(j) of the Federal Clean Air Act provides that if EPA does not promulgate a final MACT regulation for a listed category of sources within 18 months after the deadline, owners and operators of facilities in the category must file an application for case-by-case MACT limitations as part of their Title V permit. In this case, MACT standards for the pulp and paper production source category were scheduled to be promulgated by November 15, 1997; hence, 18 months after the deadline would be May 15, 1999. Since EPA has already promulgated MACT rules for many pulp and paper mill sources (final rule signed November 14, 1997 and published in the Federal Register April 15, 1998), we believe that 112(j) may not apply. In addition, on April 16, 1999, EPA promulgated a direct final rule extending the Section 112(j) application deadline for source categories in the "seven-year MACT promulgation bin" to December 15, 1999 (64 Fed. Reg. 18,824). Hence, unless this extension were declared invalid, affected sources have an additional seven months to submit applications even if Section 112(j) does apply.

This application is therefore being submitted as a precautionary measure in case it is determined, despite EPA's prior MACT promulgations and the extension, that the May 15, 1999 deadline still applies. Nothing in this cover letter or the enclosed application is intended as an admission or acceptance that the May 15 deadline does apply. If your agency determines that the deadline does not apply, we ask that you hold the application and not begin processing it until the December 15, 1999 date set by EPA, or such other date as is subsequently determined to be the deadline.

EPA has already determined that for chemical recovery combustion sources no MACT controls are justified for HAPs other than particulate metals. For the HAP metals, EPA has proposed giving sources the option of meeting either specified particulate limits (generally equal to NSPS) or specified limits on HAP metals. Sources also have the option of meeting these limits through a "bubble." The only technology EPA has identified for meeting the proposed MACT II limits is more stringent control of particulate emissions.

For purposes of this precautionary application, in order to ensure that we have a complete application that meets the requirement of 40 CFR 63.55(a)(1), we have indicated that the affected MACT II sources will comply with the particulate limitations in EPA's April 15, 1998 proposal. However, as noted in the application, there is insufficient available data on emissions of HAP metals from recovery boilers, smelt dissolving tanks, and lime kilns to allow reliable estimation of HAP metal emission rates from these sources. Moreover, recent industry data indicates that for these sources as a whole, there is no correlation between particulate emissions and emissions of HAP metals. Given the apparent low level of HAP metal emissions and apparent lack of correlation between particulate and metal emissions, it appears that no additional control for particulate or HAP metals may be the appropriate MACT limit. Hence, depending upon further emissions data both for

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our Company's MACT II sources and those elsewhere in the industry, we reserve the right to supplement or amend this application to either (1) select one of the other options in EPA's proposal, or (2) request that the case-by-case MACT limits be no additional control.

With regard to this application for a case-by-case Maximum Achievable Control Technology (MACT) determination, the applicant hereby with full knowledge and understanding of its rights under Sections 120.60(1) and 403.0876, Florida Statutes, waives the right under those statutes to have the application for a permit issued or denied by the State of Florida Department of Environmental Protection within the ninety day time period prescribed by law. Unless extended by the applicant, this waiver shall expire on May 15, 2000.

If you have any questions concerning this application or desire any additional information, please telephone Bill Heatley at 770-621-6732.

Very truly yours,



Hollis H. Elder
Vice President and General Manager

Cc: Chris L. Kirts, P.E. – NED FDEP

CR: Z 360 256 213

**APPLICATION FOR CASE-BY-CASE
MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY ("MACT")
DETERMINATION PURSUANT TO CLEAN AIR ACT SECTION 112(j)**

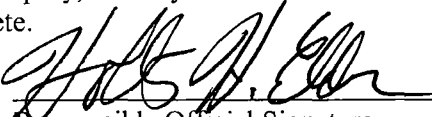
Chemical Recovery Combustion Sources at the Kraft Pulp Mill Source Category

Disclaimer

This Clean Air Act ("CAA") section 112(j) case-by-case permit application was prepared and submitted for protective purposes only and may be withdrawn at any time. This source arguably is not subject to CAA section 112(j), since the U.S. Environmental Protection Agency ("EPA") has already promulgated standards under CAA section 112(d) for the "pulp and paper" source category listed under CAA section 112(e), although EPA has proposed additional standards for chemical pulp mills. Also, on April 16, 1999, EPA promulgated a direct final rule extending the section 112(j) application deadline for source categories in the "seven-year bin" to December 15, 1999 (64 Fed. Reg. 18824). Thus, this application is being submitted only as a precautionary measure, and submission of this application in no way concedes applicability of CAA section 112(j) to this mill or the emission units included in this application.

**Application for Case-by-Case Maximum Achievable Control Technology (MACT)
Determination Pursuant to Clean Air Act Section 112(j)**

**Chemical Recovery Combustion Sources
at Kraft Pulp Mills**

I. Company Identifying Information	
A. Company Name	Jefferson Smurfit Corporation (U.S.)
B. Mailing Address	1915 Wigmore Street
City	Jacksonville
State	Florida
Zip Code	32206
C. Submitted Date	May 13, 1999
D. Telephone	904-798-5600
E. Fax	904-798-5700
II. Site Information	
A. Site Name	Jefferson Smurfit Corporation (U.S.)
B. County	Duval
C. Primary SIC	2631
D. State ID Number	0310003
III. Responsible Official	
A. Name	Hollis H. Elder
B. Title	Vice President & General Manager
C. Address	1915 Wigmore Street
City	Jacksonville
State	Florida
Zip	32206
Telephone	904-798-5600
IV. Technical Contact	
A. Name	William R. Heatley, Jr.
B. Title	Environmental Services Manager
C. Address	1979 Lakeside Parkway, Suite 300
City	Tucker
State	Georgia
Zip	30084
Telephone	770-621-6732
V. Certification	
Based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this application are true, accurate and complete.	
May 13, 1999 Date	 Responsible Official Signature

Case-by-Case MACT Determination Application
Source Description

VI. Source Description

Briefly describe the source, its source category, and the emission units requiring a case-by-case MACT determination:

This application covers recovery furnace, smelt dissolving tank, and lime kiln emission units at a Kraft pulp mill, which falls within the "pulp and paper" source category contained in EPA's CAA section 112(e) list. EPA proposed MACT standards for these types of units on April 15, 1998, 63 Fed. Reg. 18754, and promulgated MACT standards for other units at Kraft pulp mills on April 15, 1998, 63 Fed. Reg. 18504. Spent cooking liquor from digesters (black liquor) is partially evaporated to increase solids content and then burned in a recovery furnace to recover energy and to recover inorganic chemicals for recycling in the chemical recovery cycle. Particulate matter (primarily sodium sulfate, but including small amounts of hazardous air pollutant (HAP) metals) is emitted from the recovery furnace and is collected in particulate control equipment and recycled into the chemical recovery cycle. Gaseous organic air pollutants, including some HAP organic chemicals, are also emitted from the recovery furnace. Molten inorganic chemicals (smelt) are drained from the bed of the recovery furnace to a smelt dissolving tank where they are dissolved in water to create green liquor for further processing in the chemical recovery process. The smelt dissolving tank is vented, and particulate matter is emitted from that vent and controlled with particulate control equipment. Gaseous organic air pollutants may also be emitted from smelt tank vents. The green liquor is causticized with lime that is produced by burning (calcining) calcium carbonate in lime kiln(s). The exhaust gases from the lime kiln(s) contain particulate matter (primarily calcium oxide and calcium carbonate, but including small amounts of HAP metals), which is collected in particulate control equipment, and some gaseous organic HAPs.

VII. Application Type

Indicate the number of each included in this package:

- MACT proposal for existing non-direct contact evaporator Kraft recovery furnace(s)
- MACT proposal for new non-direct contact evaporator Kraft recovery furnace(s)
- MACT proposal for existing direct contact evaporator Kraft recovery furnace(s)
- MACT proposal for existing Kraft lime kiln(s)
- MACT proposal for new Kraft lime kiln(s)
- MACT proposal for existing Kraft smelt dissolving tank(s)
- MACT proposal for new Kraft smelt dissolving tank(s)

VIII. Affected Emission Source

Name/Description	ID No.	Add-on Control Device Type
No. 9 Recovery Furnace	005	Electrostatic Precipitator
No. 3 Lime Kiln	023	Electrostatic Precipitator
No. 9 Smelt Dissolving Tank	004	Wet Scrubber

**Case-by-Case MACT Determination Application
Individual Unit Summary**

Facility Name: Jefferson Smurfit Corporation (U.S.)	Date: May 10, 1999
Affected Source: No. 9 Recovery Furnace	Emission Point/ID Number: 005

I. Unit Information	
A. New Existing X	B. If existing, date constructed: 1970
C. If new, expected date of (1) commencement of construction:	(2) completion of construction: (3) startup:
D. Maximum Capacity Utilization: 120,070 Lbs. BLS/Hr	E. Expected/Actual Capacity Utilization: 100%
F. Control Technology: Electrostatic Precipitator	
G. Type: Wet Bottom	H. Make/Model: Koppers/370486 I. Control Efficiency: 99%
K. Identify Applicable Federally Enforceable Emission Limitations: This emission unit is an existing source and not subject to NSPS.	

II. Emissions									
Hazardous Air Pollutant	CAS No.	Max Uncontrolled Emission Rate *		Actual Uncontrolled Emission Rate **		Control Rate at Max Capacity		Control Rate at Actual Capacity ***	
		lbs/hr	Tons/yr	Lbs/hr	tons/yr	Lbs/hr	Tons/yr	Lbs/hr	tons/yr
Particulate Matter (PM) * *(Surrogate for HAP Metals)		12,007	52,590	11,767	51,539	24.34	106.6	23.59	103.3

* Calculated from control Efficiency

** Estimated based on 8600 hours/year

*** From compliance test of 4/2/98

**Case-by-Case MACT Determination Application
Individual Unit Summary**

Facility Name: Jefferson Smurfit Corporation (U.S.)	Date: May 10, 1999
Affected Source: No. 3 Lime Kiln	Emission Point/ID Number: 023

I. Unit Information	
A. New Existing <input checked="" type="checkbox"/>	B. If existing, date constructed: 1986
C. If new, expected date of (1) commencement of construction:	(2) completion of construction: (3) startup:
D. Maxim Capacity Utilization: 275 Tons Reburned Lime/Day	E. Expected/Actual Capacity Utilization: 100%
F. Control Technology: Electrostatic Precipitator	
G. Type: Dry Bottom	H. Make/Model: Cleveland Mfg. Co. I. Control Efficiency: 99%
K. Identify Applicable Federally Enforceable Emission Limitations: This emission unit is subject to NSPS (Subpart BB)	

II. Emissions									
Hazardous Air Pollutant	CAS No.	Max Uncontrolled Emission Rate *		Actual Uncontrolled Emission Rate **		Control Rate at Max Capacity		Control Rate at Actual Capacity ***	
		Lbs/hr	tons/yr	lbs/hr	tons/yr	Lbs/hr	tons/yr	lbs/hr	tons/yr
Particulate Matter (PM)* *Surrogate for HAP metals		2,100	9,198	2,058	9,014	8.6	37.7	7.9	34.6

*Calculated from control efficiency

** Estimated based on 8600 hours/year

*** From compliance test of 3/31/98

**Case-by-Case MACT Determination Application
Individual Unit Summary**

Facility Name: Jefferson Smurfit Corporation (U.S.)	Date: May 10, 1999
Affected Source: No. 9 Smelt Dissolving Tank	Emission Point/ID Number: 1970

I. Unit Information	
A. New Existing X	B. If existing, date constructed: 1970
C. If new, expected date of (1) commencement of construction:	(2) completion of construction: (3) startup:
D. Maximum Capacity Utilization: 120,070 Lbs. BLS/Hr	E. Expected/Actual Capacity Utilization: 100%
F. Control Technology: Wet Scrubber	
G. Type: Low-Energy Entrainment	H. Make/Model: Ducon UW-4 – Size 114 I. Control Efficiency: 95%
K. Identify Applicable Federally Enforceable Emission Limitations: This emission unit is an existing source and not subject to NSPS.	

II. Emissions									
Hazardous Air Pollutant	CAS No.	Max Uncontrolled Emission Rate *		Actual Uncontrolled Emission Rate **		Control Rate at Max Capacity		Control Rate at Actual Capacity ***	
		lbs/hr	tons/yr	lbs/hr	Tons/yr	Lbs/hr	tons/yr	lbs/hr	tons/yr
Particulate Matter (PM)* *Surrogate for HAP Metals		728	3,189	713	3,123	8.28	36.3	8.02	35.1

* Calculated from control efficiency

** Estimated based on 8600 hours/year

*** From compliance test of 4/2/98

Application for Case-by-Case MACT Determination MACT Floors for Kraft Recovery Furnaces*

SUMMARY OF EPA'S PROPOSED MACT FLOORS FOR KRAFT FURNACES (NDCE and DCE)						
Unit	PM Emission Standard	PM Control Technology	PM HAP Emission Standard	PM HAP Technology	Total Gaseous Organic (TGO) HAP Emission Standard	TGO Technology
Existing	# 0.10 g/dscm corrected to 8% oxygen	ESP capable of meeting NSPS, which typically has a specific collecting area (SCA) of 100 m ² / (m ³ /sec) (530 ft ² /1,000 cfm)	1 x 10 ⁻³ kg/Mg (2.01 x 10 ⁻³ lb/ton) of black liquor solids fired	ESP capable of meeting NSPS, which typically has a specific collecting area (SCA) of 100 m ² / (m ³ /sec) (530 ft ² /1,000 cfm)	No standard	N/A
New	# 0.034 g/dscm (0.015 gr/dscf) corrected to 8% oxygen	ESP capable of achieving a PM emission level of 0.034 g/dscm corrected to 8% oxygen (i.e., an ESP with a SCA between 110 and 130 m ² / [m ³ /sec]	N/A	N/A	# 0.012 kg/Mg (0.025 lb/ton) of black liquor solids fired, as measured by methanol	Dry ESP system

*Source: 63 Fed. Reg. 18,754 (April 15, 1998)

**Application for Case-by-Case MACT Determination
MACT Floors for Smelt Dissolving Tanks and Lime Kilns****

I. SUMMARY OF EPA'S PROPOSED MACT FLOORS FOR SMELT DISSOLVING TANKS						
Unit	PM Emission Standard	PM Control Technology	PM HAP Emission Standard	PM HAP Technology	Total Gaseous Organic (TGO) HAP Emission Standard	TGO Technology
Existing	# 0.10 kg/Mg (0.20 lb/ton) of black liquor solids fired	Wet scrubbers	# 6.20×10^{-5} kg/Mg (1.24×10^{-4} lbs/ton) of black liquor solids fired	Wet scrubbers	No Standard	No Standard
New	# 0.06 kg/Mg (0.12 lb/ton) of black liquor solids fired	High efficiency scrubbers	# 0.06 kg/Mg (0.12 lb/ton) of black liquor solids fired	High efficiency scrubbers	No Standard	No Standard
II. SUMMARY OF EPA'S PROPOSED MACT FLOORS FOR LIME KILNS						
Unit	PM Emission Standard	PM Control Technology	PM HAP Emission Standard	PM HAP Technology	Total Gaseous Organic (TGO) HAP Emission Standard	TGO Technology
Existing	# 0.15 g/dscm (0.067 gr/dscf) corrected to 10% oxygen	Venturi scrubber or ESP	# 6.33×10^{-3} kg/Mg (1.27×10^{-2} lbs/ton) of calcium oxide produced	Venturi scrubber or ESP	No Standard	No Standard
New	0.023 g/dscm (0.010 gr/dscf) corrected to 10% oxygen	ESP with operating SCA of 220 m ² (m ³ /sec) (1,120 ft ² /1,000 acfm)	N/A	Venturi scrubber or ESP	No Standard	No Standard

**Source: 63 Fed. Reg. 18,754 (April 15, 1998)

**Proposed Emission Limitation
for Kraft Lime Kilns**

I. Company and Source Information		
A. Facility Name: Jefferson Smurfit Corporation (U.S.)	B. Facility ID No. 031003	C. Affected Source ID No. 005
D. New Unit Existing Unit X	E. Annual Hours of Operation 8760	
II. Proposed Emission Limit for Existing Emission Unit:		
Applicant proposes to comply with the following MACT limitations: Concentration of PM in the exhaust gases discharged to the atmosphere is less than or Equal to 0.15 g/dscm (0.067 gr/dscf) corrected to 10 percent oxygen.		
III. Proposed Emission Limit for New Emission Unit:		
Not applicable – existing unit.		
IV. Selected Control Technology.		
Existing unit – electrostatic precipitator (ESP).		
V. Monitoring and Recordkeeping		
Applicant proposes to comply with the following: Monitoring and recordkeeping requirements at proposed 40 C.F.R. sections 63.864 – 63.866, as appropriate.		
VI. Supporting Information and Data.		
63 Fed. Reg. 19,754(April 15, 1998) and administrative record for the same.		

**Proposed Emission Limitation
for Kraft or Soda Smelt Dissolving Tanks**

I. Company and Source Information		
A. Facility Name: Jefferson Smurfit Corporation (U.S.)	B. Facility ID No. 0310003	C. Affected Source ID No. 004
D. New Unit Existing Unit X	E. Annual Hours of Operation 8760	
II. Proposed Emission Limit for Existing Emission Unit:		
Applicant proposes to comply with the following MACT limitations: The concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 kg/Mg (0.20 lb/ton) of black liquor solids.		
III. Proposed Emission Limit for New Emission Unit:		
Not applicable – existing unit.		
IV. Selected Control Technology.		
Existing unit – Existing wet scrubber		
V. Monitoring and Recordkeeping		
Applicant proposes to comply with the following: Monitoring and recordkeeping requirements at proposed 40 C.F.R. sections 63.864 – 63.866, as appropriate.		
VI. Supporting Information and Data.		
63 Fed. Reg. 19,754 (April 15, 1998) and administrative record for the same.		

**Proposed Emission Limitation
for Kraft Recovery Furnaces**

I. Company and Source Information		
A. Facility Name: Jefferson Smurfit Corporation	B. Facility ID No. 0310003	C. Affected Source ID No. 005
D. New Unit Existing Unit X	E. Annual Hours of Operation 8760	
II. Proposed Emission Limit for Existing Emission Unit:		
Applicant proposes to comply with the following MACT limitations: The concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 g/dscm (0.044 gr./dscf) corrected to 8% oxygen.		
III. Proposed Emission Limit for New Emission Unit:		
Not applicable – existing unit.		
IV. Proposed Control Technology.		
Existing units – ESP capable of meeting NSPS, which typically has a specific collecting area (SCA) of 100 m ² / (m ² /sec) (530 ft ² / 1000 cfm)		
V. Monitoring and Recordkeeping		
Applicant proposes to comply with the following: Monitoring and recordkeeping requirements at proposed 40 C.F.R. sections 63.864 – 63.866, as appropriate.		
VI. Supporting Information and Data.		
63 Fed. Reg. 19,754 (April 15, 1998) and administrative record for the same.		