NORTH CAROLINA DIVISION OF AIR QUALITY

(Draft) Air Permit Review

(10/19/05)
Permit Issue Date:

Region: Raleigh Regional Office
County: Northampton
NC Facility ID: 6600041
Inspector's Name: Bernard McKee
Date of Last Inspection: 07/27/2004
Compliance Code: 3/In Compliance - Inspection

Facility Data

Applicant (Facility's Name): International Paper Co - Seaboard

Facility Address:
International Paper Co - Seaboard
4400 NC Highway 186 East
Seaboard, NC 27876

SIC: 2421 / Sawmills & Planing Mills General
NAICS: 321113 / Sawmills

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP:
NSPS:
NESHAP:
PSD:
PSD Avoidance:
NC Toxics:
112(r):
Other:

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Tyrone Deloatch EHS Coordinator (252) 589-8220 P. O. Box 459 Seaboard NC, 27876	E Buck Plant Manager - Seaboard (252) 589-8202 P. O. Box 459 Seaboard NC, 27876	Tyrone Deloatch EHS Coordinator (252) 589-8220 P. O. Box 459 Seaboard NC, 27876

Application Data

Application Number: 6600041.05A
Date Received: 03/03/2005
Application Type: Modification
Application Schedule: TV-Significant

Existing Permit Data
Existing Permit Number: 03937/T16
Existing Permit Issue Date: 01/28/2005
Existing Permit Expiration Date: 04/30/2006

Review Engineer: Gautam Patnaik

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 03937/T17
Permit Issue Date:
Permit Expiration Date:

1. Facility Description.

International Paper operates a chip and saw mill in Seaboard, North Carolina. Pine logs are trucked, debarked and processed at this facility. The lumber is then dried in the lumber kilns, this drying is done by indirect heat transfer from steam produced from the wood-fired boilers.

2. Purpose of Application

a) The current permit for this facility (Air Quality Permit No. 03937T16) issued on February 4, 2005 as a Significant 2Q .0501(c)(2) change. This was done as a two step process to expedite the construction of:

i) One wood-fired boiler with flyash reinjection (65.0 million Btu per hour maximum heat input, ID No. ES-3). This boiler will be controlled by electrostatic precipitator, (6,666 square feet of plate area, ID No. ESP1) and
ii) one steam heated lumber drying kiln (145,000 board feet charge, ID No. ES1ALDK).

This modification process was not done with a public notice or an EPA review. As per the requirement the applicant has now submitted an application for the above modification to be subject to a public notice and an EPA review.

b) Also the renewal application due date for the current permit is July 31, 2005. Thus, this application is also being treated as a renewal application.

3. Application Chronology

Since the initial title V permit was issued the applicant has applied for several modifications and the table below outlines the modification to their permit since this application was received:

Application #	Date Application Received	Changes Made to the Permit	Permit Issued
6600041.04B	7/21/04	i) An addition of one wood-fired boiler with flyash reinjection (65.0 million Btu per hour maximum heat input, ID No. ES-3). This boiler is to be controlled by electrostatic precipitator (6,666 square feet of plate area, ID No. ESP1) and ii) one steam heated lumber drying kiln (145,000 board feet charge, ID No. ES1ALDK)	03937T16
6600041.04C	10/8/04	administrative amendment	03937T15
6600041.04A	6/15/04	administrative amendment	03937T14
6600041.03A	6/4/03	replace two steam heated lumber drying kilns with new kilns with identical charging capacity. ES-2ALDK replacement for ES-2LDK and ES-4LDK replacement for ES-1LDK	03937T13

4. Regulatory Review

The facility is subject to the following regulations:

15A NCAC 2D .0504: "Particulates from Wood Burning Indirect Heat Exchangers"

15A NCAC 2D .0516 "Sulfur Dioxide Emissions from Combustion Sources"

2D . 15A NCAC 0521 "Control Of Visible Emissions"

15A NCAC 2D .0524 "NSPS 40 CFR PART 60 SUBPART Dc"

15A NCAC 2D .0512: "Particulates From Miscellaneous Wood Products Finishing Plants"

15A NCAC 2D .1806: "Control and Prohibition Of Odorous Emissions"

15A NCAC 2D .1100: "Toxic Air Pollutant Emission Limitation and Reporting Requirement"

15A NCAC 2Q. 0711: "Emission Rates Requiring a Permit"

No regulatory review is required for the above regulations for this application and renewal revision.

15A NCAC 2D .1111, 40 CFR Part 63, Subpart DDDD: National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products;

The lumber kiln (ID No. ES1ALDK) is a new source as per this MACT regulation. However the guidance provided for lumber kilns by this MACT states that "Only those facilities that are major sources of HAP emissions are subject to the final PCWP NESHAP. Facilities with non-colocated lumber kilns that are classified as major sources of HAP must submit an initial notification form required by the final PCWP NESHAP." Thus, this source is only subject to a initial notification requirement.

15A NCAC 2Q. 0317: "Avoidance Conditions "
For 15A NCAC 2D .0530 "Prevention of Significant Deterioration"
For emissions of VOCs, NOx and CO.

The current permit has PSD avoidance conditions for all three boilers to ensure that the emissions of NOx and CO from these boilers are each less than 250 tons per year. In a letter from E Carl Buck of International Paper to Don van der Vaart dated July 11, 2005, the applicant had raised their objection to the imposition of these restrictions for the emissions of NOx and CO. In the previous application (6600041.04B) for the addition of the new boiler ES-3 the applicant had stated the average annual emissions of NOx and CO for the year 2002 and 2003 were 80 tons and 98 tons from the boilers. Based on the fact that the baseline actual emissions from the old boilers plus 250 tons per year, is less than the future potential from the three boilers for the emissions of NOx and CO, the PSD avoidance conditions for NOx and CO pertaining to the boilers are being removed.

The applicant had submitted an application (6600041.03A) in November 2003, to replace two steam heated lumber drying kilns with new kilns with identical charging capacity. This application (6600041.03A) resulted in Air Permit No. 03937T13 which resulted in the addition of two kilns ES-2ALKD and ES-4LDK. These new kilns had identical charging capacity and were to ultimately replace the existing kilns ES-1LDK and ES-2LDK. Air Permit No. 03937T13 also had a PSD avoidance condition for VOC emissions to be less than 250 tons per year.

It was decided to consider this application (6600041.03A) as incomplete for PSD modification. The changes required for application (6600041.04B) along with changes made for the earlier application (6600041.03A) were considered as one significant modification for the purpose of PSD. As per the netting analysis done during the modification of application # 6600041.04B, this resulted in the facility having a facility wide limit of 436.12 tons per year of VOC emissions. During the application (6600041.04B) processing period the applicant had requested to get a permit without the public notice and EPA review to expedite construction of the new sources and a second set of emission limit were imposed for all sources limiting the emissions of VOCs from all sources to be less than 250 tons per year of VOCs. This more restrictive emission limit in the current permit was to ensure that the VOC emissions limit of Air Quality Permit No. 03937T15 were met and that the facility would not get the facility wide emission limit of 436.12 tons per year of VOC until the new permit is subject to a public and EPA review. The new permit would just have a facility wide limit of 436.12 tons per year of VOC emissions since the new permit is being subject to public and EPA review.

State Only Requirement
15A NCAC 2Q .0705 EXISTING FACILITIES AND SIC CALLS

This rule require that the facility comply with the 15A NCAC 2D .1100 when the facility applies to comply with the last MACT. This rule is stipulated in the Compliance Schedule section of the permit.

15A NCAC 2D .1111, 40 CFR Part 63, Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters;

The applicant had initially stated in their application that they plan to install this boiler as a fire tube boiler and planed to demonstrate compliance by performance testing. Later on they again submitted an application indicating that they plan to demonstrate compliance with this MACT by fuel analysis. In a later e-mail they informed us that they plan to have the boiler ES-3 as a fire tube boiler and on 9/28/05 they in another e-mail indicated they planned to demonstrate compliance to this MACT by performance testing.

Thus, the boiler ES-3 shall comply with all requirements of 15A NCAC 2D .1111 "Maximum Achievable Control Technology" and 40 CFR Part 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters," by demonstrating compliance by performance test and since this is a fire tube boiler and based on the construction date of the new boiler this boiler will be classified as a new small solid boiler.

The permit was written based on the guidance of the applicability flow chart provided for the Boiler MACT by EPA.

I. Demonstration of compliance by performance test:
   Based on the rating, fuel used, boiler type and the construction date this boiler would be classified under the new, small, solid fuel boiler category. To demonstrate compliance

with the boiler MACT by performance testing the emissions limits for various pollutants are listed below:

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	0.025 lb/MMBtu	40 CFR Part 63, Subpart DDDDD
(or TSM)	0.0003 lb/MMBtu	40 CFR Part 63, Subpart DDDDD
HCl	0.02 lb/MMBtu	40 CFR Part 63, Subpart DDDDD
Hg	0.000003 lb/MMBtu	40 CFR Part 63, Subpart DDDDD

A. Performance test to demonstrate compliance with emission of particulate matter (or TSM), HCl and Hg:

The emission of particulate matter (or TSM), HCl and Hg shall not exceed the emission rate for each pollutant as stated above. The applicant to demonstrate compliance with particulate matter (or TSM), HCl and Hg using performance test shall follow the requirements for 'Population IV' as provided in the flow chart (pg 17) and shall adhere to the following:

a) General Requirements:
   1) As per the requirements of 40 CFR §63.7521 the applicant must develop and submit a site-specific fuel analysis plan to DAQ for review and approval according to the following procedures and requirements:
      i) The Permittee must submit the fuel analysis plan no later than 60 days before the date the Permittee intends to demonstrate compliance,
      ii) The Permittee must include following information contained in the fuel analysis plan:
         a) notification of whether the Permittee or a fuel supplier will be conducting the fuel analysis,
         b) a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if the procedures are different from 40 CFR §63.7521(c) or (d). Samples should be collected at a location that most accurately represents the fuel type,
         c) the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.
         d) If the Permittee requests to use an alternative analytical method other than those required by Table 6 of subpart DDDDD, the plan must also include a detailed description of the methods and procedures that will be used and
         e) If the Permittee will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 of subpart DDDDD.

   2) As per the requirements of 40 CFR § 63.7505(d) for each continuous monitoring system (CMS) the applicant must develop and submit to DAQ for approval a site-specific monitoring plan that addresses the requirements below:
      i) installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions,

ii) performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems and
iii) performance evaluation procedures and acceptance criteria (e.g., calibrations).

3) The site-specific monitoring plan must also address the requirements of 40 CFR § 63.7505(d)(2)(i) thru (iii):
   i) Ongoing operation and maintenance procedures,
   ii) ongoing data quality assurance procedures, and
   iii) ongoing recordkeeping and reporting procedures.
4) The applicant must conduct a performance evaluation of each CMS.
5) Must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.
6) The applicant shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to 40 CFR § 63.6 (e)(3).
7) Must be in compliance with the emission limits.
8) Must always operate and maintain the boiler including air pollution control and monitoring equipment, according to 40 CFR § 63.6(e)(1)(i).

b) Testing Requirements:
   1) To demonstrate compliance with emission of particulate matter (or TSM), HCl and Hg the applicant shall follow the methods and procedures in 40 CFR § 63.7520:
      a) Use test methods listed in Table 5 of subpart DDDDD,
      b) conduct performance tests according to 40 CFR § 63.7(c), (d), (f), and (h) under the specific conditions listed in Tables 5 subpart DDDDD,
      c) conduct performance test at the maximum normal operating load while burning the type of fuel that have the highest content of chlorine, mercury, and total selected metals,
      d) conduct 3 separate test runs as specified in 40 CFR § 63.7(e)(3) as per 40 CFR § 63.7520(f),
      e) use F-Factor methodology in Method 19 to convert pollutant concentrations to pounds per MMBtu (40 CFR § 63.7520(g)),
      f) demonstrate initial compliance based on these tests, (40 CFR § (63.7520(d)),
      b) In order to use alternate monitoring procedures apply to DAQ for approval,
      c) The applicant must conduct all applicable performance tests initially, then annually, with the following exceptions:
      i) If you demonstrate compliance with the applicable emission limits for any pollutant for three consecutive years, you can conduct performance tests every three years. However, if you do not meet an emission limit at any point in time, you must return to annual performance tests until you demonstrate compliance for three consecutive years (40 CFR § 63.7515(b)).
   2) Establishing operating limits:
      a) The operating limit for control of particulate matter (or TSM) is to maintain opacity levels at or below 10% (1-hour block average) for the boiler. (pg 22 of the flow chart)
      b) The operating limits to control Hg is to maintain opacity levels at or below 10% (1-hour block average) for the boiler. (pg 26)

3) To meet the applicable opacity operating limit the applicant must install, operate, certify and maintain a Continuous Opacity Monitoring System (COMS) on the boiler according to the procedures below: (40 CFR § 63.7525(b)(1) to (7))
   a) The COMS must be installed, operated, and maintained according to PS 1 of 40 CFR § 60, Appendix B.
   b) must conduct a performance evaluation of the COMS according to the requirements in 40 CFR § 63.8 and according to PS 1 of 40 CFR § 60, appendix B,
   c) as specified in 40 CFR § 63.8(c)(4)(i), the COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period,
   d) the COMS data must be reduced as specified in 40 CFR § 63.8(g)(2).
   e) must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in 40 CFR § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of the COMS,
   f) must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of 40 CFR § 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit,
   g) must determine and record all the 1- hour block averages collected for periods during which the COMS is not out of control.

c) Continuous:

1) The applicant must report each instance in which you did not meet each emission limit (40 CFR § 63.7540(b)). The applicant will be in violation of exceeding the emission limit for particulate matter (or TSM) and Hg if the opacity emissions exceed the above opacity standards.

Records and Reports : (pg 17)

d) Initial Notification: (40 CFR § 63.7545)
   1) The applicant must submit all of the notifications in 40 CFR § 63.7(b) and (c), 40 CFR § 63.8 (e), (f)(4) and (6), and 40 CFR § 63.9 (b) through (h) that apply by the dates specified. (40 CFR § 63.7545(a)).
   2) Must submit an initial notification not later than 15 days of the startup of the boiler. (40 CFR § 63.7545(c)).
   3) Must submit a notification of intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. (40 CFR § 63.7545(d))

e) Notification of Compliance Status: (pg 17 & 40 CFR § 63.7545(e))
   1) Then applicant must submit a 'NOCS' as specified in 40 CFR § 63.9(h)(2)(ii). For each initial compliance test, the applicant must submit the Notification of

Compliance Status, including all performance test results, which must contain all the following information: (40 CFR § 63.7545(e) (1) thru (9) as applies)

i) A description of the boiler including identification of which subcategory the source is in, the boiler rating, a description of the control device on the boiler, description of the fuel burned, and justification for the fuel burned during the performance test,
ii) summary of the results of all performance tests and calculations conducted to demonstrate initial compliance including all established operating limits,
iii) identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit,
iv) signed certification that you have met all applicable emission limits,
v) if there was deviation from any emission limit standard, then the applicant must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the NOCS report.

f) Semiannual Compliance Report: - (pg 17 & 40 CFR § 63.7550)

The applicant must submit a semiannual compliance report with all instances of deviations from the requirements of this permit clearly identified. This report must include: (40 CFR § 63.7550(c) (1) thru (11))

a) Company name and address,
b) Statement by a responsible official certifying the accuracy, and completeness of the content of the report,
c) date of report and beginning and ending dates of the reporting period,
d) total fuel use by the boiler for each calendar month,
e) summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable,
f) signed statement indicating that you burned no new types of fuel,
g) the compliance report must include the information as per 40 CFR § 63.10(d)(5)(i) to indicate actions consistent with your SSMP was taken during a startup, shutdown, or malfunction,
h) If there are no deviations from any emission limits, a statement that there were no deviations from the emission limits during the reporting period,
i) if there were no periods during which the COMS was out of control as specified in to 40 CFR § 63.8(c)(7), a statement that there were no periods during which the COMS was out of control during the reporting period.

g) Records: (pg 17 & 40 CFR § 63.7555)

The applicant must keep the following records:

a) A copy of each notification and report that you submitted to comply with this regulation including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted,
b) the records as specified in 40 CFR § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction,
c) records of performance tests or other compliance demonstrations, performance evaluations, and opacity observations as required in 40 CFR 63.10(b)(2)(viii),

d) must keep records of monitoring data for continuous opacity monitoring system during performance evaluation,
e) keep records for the COMS - the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
f) You must keep records of monthly fuel used.

5. NSPS, NESHAPS, PSD, Attainment Status, 112(r), CAM

NSPS

The boiler ES-3 is subject to NSPS Subpart Dc

NESHAP/MACT

The facility will be subject to "National Emission Standards for Hazardous Air Pollutants Subpart DDDD i.e., "Plywood and Composite Wood Products*" (*MACT*).* The compliance date for this MACT is within 3 years of September 28, 2004. This requirement is being stipulated in the 'Compliance Schedule' of the new permit.

The boiler ES-3 is also subject to the boiler MACT as a new large boiler , i.e. 40 CFR Part 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters" [40 CFR §63.7480]. The language in the new permit states that this source will be subject to the boiler MACT and the detailed version of this rule is stipulated in the new permit.

PSD

By the modification of this application the facility will still be a minor facility for the emission of NOx and CO and a major facility for the VOC emissions.

112(r)

This facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule.

CAM

This facility is not subject to CAM regulations since all the control devices used at this facility are for the control of particulate matter and the before control PM10 emission rate for each source being controlled by these devices is below 100 tons per year.

6. Facility Wide Air Toxics

The modification of this permit did require an air toxics analysis and the applicant demonstrated compliance by modeling.

7. Applicant's and the Regional Office Comments

The applicant and the Regional Office were given a copy of the draft permit and their comments taken into consideration. On 9/25/05 in an e-mail the applicant stated "Seaboard has shut down ES-1LDK and installed ES-2ALDK and ES-4LDK."Therefore the Kiln (No. ES-1LDK) is being removed from the permit and all references and conditions related to this kiln are removed in the new permit.

8. Public Notice/EPA and Affected State(s) Review

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. No other States fall within a 50 mile radius of this Facility.

9. Conclusions, Comments, and Recommendations

As per the inspection done on 07/27/2004 by the Regional Office the facility appeared to be in compliance.

A professional engineer's seal was not required for this renewal.

A consistency determination was not required for his renewal.

Regional Office concurs to issue the air permit.

10. Permit Modification/Changes

The following table describes the modifications to the current permit as part of the modification process.

Page(s)	Section	Description of Change(s)
source table	Kiln (No. ES-1LDK)	This kiln is removed from the permit and all reference to this kiln are also removed.
7 through 10	2.1 A. 5.	Boiler MACT (compliance by performance test)
15	2.3 A	"Plywood and Composite Wood Products" MACT – Initial notification for kiln (ID No. ES1ALDK)
15	2.3 B	15A NCAC 2Q .0705 requirement.