LOUISVILLE METRO
AIR POLLUTION CONTROL DISTRICT
850 Barret Ave., Louisville, Kentucky 40204

September 01, 2015
FEDOOP Statement of Basis

Company: Anderson Wood Products Company

Plant Location: 1381 Beech Street, Louisville, Kentucky 40211

Date Application Received: 03/10/2008; 09/09/2008; 04/30/2014

Date of Draft Permit: 9/01/2015

District Engineer: Randy Schoenbaechler **Permit No:** O-0016-15-F

Plant ID: 0016 **SIC Code:** 2426 N**AICS**: 321918

Introduction:

This permit will be issued pursuant to District Regulation 2.17, *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hr and 8 hr ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is a non-attainment area for the 1997 standard for particulate matter less than 2.5 microns ($PM_{2.5}$), unclassifiable for the 2012 standard for particulate matter less than 2.5 microns ($PM_{2.5}$) and partial non-attainment area for sulfur dioxide (SO_2).

Application Type/Permit Activity:

[X] Initial Issuance

[ ] Permit Revision
- [ ] Administrative
- [ ] Minor
- [ ] Significant

[ ] Permit Renewal

Compliance Summary:

[ ] Compliance certification signed [X] Compliance schedule included
[ ] Source is out of compliance [ ] Source is operating in compliance

I. Source Information

1. Source Description: The source creates dimension woods for component parts, examples, furniture, stair rails, and wood panels.

2. Site Determination: There are no other facilities that are contiguous or adjacent and under common control.

3. Emission Unit Summary:

Emission Unit	Equipment Description
U1	On (1) pneumatic wood waste conveying system which includes four (4) process cyclones (B, C, D, and F)
	One (1) Carborundum baghouse to control emissions from cyclones B, C, D, and F
	One (1) Carter Day fabric filter to the wood waste silo
U2	One (1) wood-fired boiler
	One (1) multiple cyclone make Zurn
U3	One (1) truck loading operation
U4	Spray application of Nelsonite (wood stabilizer)
U5	One (1) cold solvent vapor degreaser not equipped with a secondary reservoir

4. Fugitive Sources: There are no fugitive source emissions at this facility.

5. Permit Revisions/Changes:

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	O-0016-15-F.	X/X/2015	9/01/2015	Initial	Entire Permit	Initial Permit Issuance

6. Emission Summary:

Pollutant	Potential Emissions Uncontrolled(tpy)	Major Source Status
PM	151.03	No
PM_{10}	147.32	Yes
NOx	28.54	No
SO2	1.46	No
CO	34.95	No
VOC	20.63	No
Highest Single	1.10	No

Pollutant	Potential Emissions Uncontrolled(tpy)	Major Source Status
HAP (Toluene)		
Total HAPs	2.04	No

7. Construction Permit History:

Permit No.	Issue Date	Description
454-74-C	8/28/1974	One (1) process cyclone (B)
456-74-C	8/28/1974	One (1) process cyclone (C)
458-74-C	8/28/1974	One (1) process cyclone (D)
459-74-C	8/28/1974	Baghouse, Carborundum P.C.D.,model #720 M10
460-74-C	8/28/1974	One (1) process cyclone (F)
620-75-C	11/17/1975	Kewanee Boiler, model #7L289, 15 mmbtu/hr
621-75-C	11/17/1975	Zurn Multiple Cyclone
622-75-C	11/17/1975	Wood Waste Silo
310-76-C	5/5/1976	One (1) truck loading operation to unload wood waste from the silo
189-88-C	12/16/1988	Fabric Filter, make Carter Day,model 72RJ84.
82-89-C	3/30/1989	Spray application of wood stabilizer

8. Applicable Requirements:

[ ] PSD [ ] 40 CFR 60 [X] SIP [X] 40 CFR 63
[ ] NSR [ ] 40 CFR 61 [X] District-Origin [X] Other

9. MACT Requirements:

40 CFR 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

10. Referenced non-MACT Federal Regulations in Permit:

None

II. Regulatory Analysis

1. Acid Rain Requirements: The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: This source does not manufacture, sell, or distribute any of the chemicals listed in title VI of the CAAA. Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. Basis of Regulation Applicability:

Regulation	Basis for Applicability	Type
2.17	Federally Enforceable District Origin Operating Permits	SIP
6.07	Indirect Heat Exchanger greater than 10 MMBTU/hr	SIP
6.09	Applies to each existing affected facility which is commenced before September 1, 1976.	SIP
6.18	Cold Solvent Parts Washer is subject to VOC emission standards.	SIP
6.24	Standard of Performance for Existing Sources Using Organic Materials	SIP
7.08	Applies to each new affected facility which is commenced after September 1, 1976.	SIP
40 CFR 63 Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	Federal

a. **Plant-wide**

Anderson Wood Products is a potential major source for the pollutant PM_{10}. Regulation 2.17 – F*ederally Enforceable District Origin Operating Permits* establishes requirements to limit the plant-wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. Per Regulation 2.17, section 5.1, plant-wide PM_{10} emissions are limited to less than 25 tons during any consecutive 12-month period.

Regulation 2.17, section 5.1 allows the District to incorporate operational limits into the permit. This source requested a plant-wide emission limit of 25 tons per year for criteria pollutants, 12.5 tons per year for Total HAPs,

and 5 tons per year for individual HAPs. The source is not major for Greenhouse Gases.

Regulation 2.17, section 5.2 requires monitoring and record keeping assuring ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued shall submit an annual compliance certification by April 15. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an annual compliance report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

Regulation 2.17, section 5.1, allows the source to set a synthetic limit below the major source threshold. The source has requested a synthetic limit of less than 25 tons per of the pollutant PM_{10} in a 12 consecutive month period.

b. **Emission Unit U1:**

i. **Equipment:**

Emission Process/ Point ID	Description Make/Model	Applicable Regulation	Control ID
E1A	One (1) wood waste conveyor system	6.09	C1 & C2
E1B	One (1) process cyclone (B)	6.09	C1 & C2
E1C	One (1) process cyclone (C)	6.09	C1 & C2
E1D	One (1) process cyclone (D)	6.09	C1 & C2
E1E	One (1) process cyclone (F)	6.09	C1 & C2

ii. **Standards/Operating Limits**

1) **PM/PM_{10}**

The source shall not allow PM emissions to exceed hourly and 12 consecutive month limits for equipment in accordance with District Permit 189-88-C effective 12/16/88.

2) **Opacity**

Regulation 6.09, section 3.1 establishes an opacity standard of less than 20%.

c. **Emission Unit U2:**

i. **Equipment:**

Emission Process/ Point ID	Description Make/Model	Applicable Regulation	Control ID
E2A	One (1) wood fired boiler 13.3 MMBtu/hr, make Lewanee, model 7L289	6.07 40 CFR 63 Subpart JJJJJJ	C3

ii. **Standards/Operating Limits**

1) **SO_2**

The wood fired boiler is subject to Regulation 6.07. The emission standard for SO2 is determined in accordance with Regulation 6.07, section 4.1 as follows:

9.46*(13.3)-0.374 = 3.59 lb/MMBtu

2) **PM/PM_{10}**

(a) The wood fired boiler is subject to Regulation 6.07. The emission standard for PM is determined in accordance with Regulation 6.07, section 3.1 as follows:

PM limit = $0.9634*(13.3)^{-0.2356}$ = 0.52 lb/MMBtu

3) **Opacity**

Regulation 6.07, section 3.2 establishes opacity standards for the boilers.

4) **HAP**

40 CFR 63 Subpart JJJJJJ establishes work practice standards and operating limits for the Boiler

d. **Emission Unit U3:**

i. **Equipment:**

Emission Process/ Point ID	Description Make/Model	Applicable Regulation	Control ID
E3A	One (1)Wood Waste Silo	6.09	N/A
E3B	One (1) Screw Conveyor	6.09	N/A
E3C	One (1) Cleated Belt Conveyor	6.09	N/A

ii. **Standards/Operating Limits**

1) **PM/PM_{10}**

The source shall not allow PM emissions to exceed hourly limits for each piece of equipment in accordance with Regulation 6.09, section 3.2. The equation to calculate the emission limits is PM lb/hr limit = 4.10*(process weight ton/hr)$^{0.67}$, where P is expressed in tons/hr.

2) **Opacity**

Regulation 6.09, section 3.1 establishes an opacity standard of less than 20%.

e. **Emission Unit U4:**

i. **Equipment:**

Emission Process/ Point ID	Description Make/Model	Applicable Regulation	Control ID
E4A	One (1) wood stabilizer spray	6.24	N/A

ii. **Standards/Operating Limits**

VOC

(a) The source shall not allow VOC emissions of Class I, II, or III solvents to exceed limits for each piece of equipment in accordance with Regulation 6.24, section 3.3.

(b) The source shall not allow VOC emissions to exceed hourly and 12 consecutive month limits for equipment in accordance with District Permit 82-89-C effective 3/30/89.

f. **Emission Unit U5:**

i. **Equipment:**

Emission Process/ Point ID	Description Make/Model	Applicable Regulation	Control ID
E5A	One (1) cold solvent vapor degreaser not equipped with a secondary reservoir	6.18	N/A

ii. **Standards/Operating Limits**

VOC

(a) The source shall install, maintain and operate the control equipment per Regulation 6.18, section 4.

(b) The source shall observe at all times the operating requirements per regulation 6.18, section 4.2.

(c) The source shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds1.0 mm Hg (0.019 psi) measured at 20°C (68°F) per Regulation 6.18, section 4.3.2.

III. Other Requirements

1. Temporary Sources: The source did not request to operate any temporary facilities.

2. Short Term Activities: The source did not report any short term activities.

3. Emissions Trading: N/A

4. Operational Flexibility: The source did not request any operational flexibility.

5. Compliance History:

Incident Dates	Regulation Number	Regulation Violated	Result
8/3/1993	1.14	Fugitive: Building/Equip	Agreement
9/28/1994	6.07	Opacity	Agreement
11/13/2000	1.14	Fugitive: Opacity > 20%	Agreement
12/8/2006	2.03	Permit Conditions: Binding	Agreement
11/16/2006	2.03	Permit Conditions: Binding	Agreement
1/29/2008	1.07	Failure to Report Excess Emissions	Agreement
1/29/2008	2.03	Permit Conditions: Binding	Agreement

Incident Dates	Regulation Number	Regulation Violated	Result
5/30/2008	1.09	Air Pollution: General Prohibition	Agreement
5/30/2008	1.14	Fugitive: Open Site	Agreement
5/30/2008	2.17	Compliance with Permit	Agreement
3/2/2010	1.07	Failure to Report Excess Emissions	Agreement
3/2/2010	1.14	Fugitive: Open Site	Agreement
6/26/12	1.14	Visible Fugitive Emissions Beyond the Property	Agreement
6/26/12	1.07	Failure to Submit Written Report Within 15 Days	Agreement
3/17/2015	5.02	Failure to Comply with Part 63 Requirement	Board Order

6. Calculation Methodology or Other Approved Method:

Unit 1

Controlled PM Emissions (lbs) = Amount in pounds unloaded from the silo for the month * 0.000016 $lb_{PM}/lb_{sawdust}$

Where: 0.000016 equals the assumed PM emission loss based on AP-42, 10.9-7

Determine the pound per hour controlled PM emissions by dividing the Controlled Emissions (S2.a.iv) by the hours of operation of the Carter day dust collector system (S2.a.ii) for that previous month.

Hourly Uncontrolled PM Emissions lb/hr = Hourly Controlled PM Emissions lb/hr (S2.a.v.1)) / (1-0.99)

Where: 99% is the assumed control efficiency used in AP-42, 10.9-7.

Total Uncontrolled PM Emissions (lbs) = Hourly Uncontrolled PM Emissions (lb/hr) (S2.a.v.2)) * duration of the bypass or malfunction (hours)

Unit 2

Boiler emissions (lbs) = hours of operation * 13.3 MMBtu/hr * 0.36 lb/MMBtu / 2000

Where 13.3 MMBtu/hr is the rating of the boiler,

2000 is the amount of pounds per ton, and

0.36 lb/MMBtu is the emission factor for PM10 per AP-42

Unit 3

Truck Loading emissions (lb/month)= (Saw dust loaded into trucks (lb/month) / 2000 lb/ton) * 0.034 lb/ton

Where 2000 is the conversion factor for pounds to tons, and

0.034 lb/ton is the emission factor for PM10 per AP-42, 9.9-1

7. **Permit Fees:** The initial permit issuance fee of $3,099.10 is based on the Schedule of Fees table in Regulation 2.08, section 12: FEDOOP Initial Permit Issuance ($2,582.58), and NESHAP Review ($516.52).

8. **Insignificant Activities:**

Description	Quantity	PTE	Basis
Internal combustion engines fixed or mobile	11	NOx 0.45 CO 0.09 PM 0.06 PM10 0.02 SO2 1.48 VOC 0.004 Total HAP 0.003 In tpy For largest 240 hp engine	Regulation 1.02 Appendix A
Brazing, Soldering, or Welding Equipment	2	<1 tpy material usage reported by company	Regulation 1.02 Appendix A
Woodworking except for conveying hogging or burning wood/sawdust	102	Accounted for in conveyance unit	Regulation 1.02 Appendix A
Emergency relief vents or ventilating systems (not otherwise regulated)	1	~ 0 tpy	Regulation 1.02 Appendix A
Diesel Storage Tank	1	<1 tpy	Regulation 1.02 Appendix A
Boiler (1.26 MMBTU Natural Gas)	1	NOx 0.54 CO 0.45 PM 0.04 PM10 0.04 SO2 0.00 VOC 0.03 Lead 2.71E-06 Ammonia (NH3) 0.02 Total HAP 0.010 tpy	Regulation 1.02 Appendix A