



State of Idaho
Department of Environmental Quality
Air Quality Division

**AIR QUALITY PERMIT
STATEMENT OF BASIS**

Tier II Operating Permit and Permit to Construct

No. T2-2007.0129

FINAL

Fiber Composites, LLC

Meridian, Idaho

Facility ID No. 001-00115

January 8, 2008

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Permit Writer

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The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.400 and IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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Acronyms, Units, and Chemical Nomenclature

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	Hazardous Air Pollutants
hp	horsepower
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
m	meter(s)
MACT	Maximum Available Control Technology
MMBtu	Million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O ₃	ozone
PM	Particulate Matter
PM ₁₀	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PTE	Potential to Emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO ₂	sulfur dioxide
T/yr	Tons per year
µg/m ³	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

STATEMENT OF BASIS

Permittee:	Fiber Composites, LLC	Permit No.: T2-2007-0129
Location:	Meridian, Idaho	Facility ID No. 001-00115

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01 Sections 201 and 404.04, Rules for the Control of Air Pollution in Idaho (Rules) for Tier II operating permits and Permits to Construct.

2. FACILITY DESCRIPTION

Fiber Composites, LLC (formerly Louisiana-Pacific Corporation / LP Wood Polymers), Meridian facility, produces composite decking manufactured from wood waste and high density polyethylene (HDPE) resin. No raw materials for this process are produced onsite. The wood waste, consisting of trim ends, sawdust, sticks, etc., is sourced locally. The HDPE resin, which is an odorless opaque white pellet, is produced by ExxonMobil Chemical Company in Texas. Both raw materials are transported to the Meridian facility where they are either entered directly into the manufacturing process or are stored for later use.

3. FACILITY / AREA CLASSIFICATION

Fiber Composites, LLC is defined as a minor facility because the criteria pollutant emissions do not exceed 100 tons per year. The AIRS classification is "B" because the potential to emit is less than major source levels.

The facility is located within AQCR 64 and UTM zone 11. The facility is located in Ada County which is designated as a maintenance area for PM₁₀ and unclassifiable for all other criteria pollutants (CO, NO_x, SO₂, lead, and ozone). As a result of the maintenance area for PM₁₀, the facility was originally required to obtain a Tier II operating permit, and specific permit conditions were included in the State Implementation Plan for Idaho (as discussed in the Regulatory Review section).

The AIRS information provided in the Appendix defines the classification for each regulated air pollutant at Fiber Composites, LLC. This required information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

This permitting action is a renewal of Tier II Operating Permit No. T2-000037, issued July 12, 2002, and it also incorporates Permit to Construct (PTC) No. P-050039, issued March 7, 2006. Additionally, several administrative name changes for emissions control devices have been incorporated into the permit at the request of the facility. Emissions have not increased due to this permitting action. The facility has also changed ownership, resulting in a name change to Fiber Composites, LLC.

4.1 *Application Chronology*

July 11, 2007	DEQ received application
August 9, 2007	DEQ determined the application complete
October 3, 2007	Peer and regional office review of draft permit
October 5, 2007	Draft permit sent to facility for review
November 15, 2007	Public Comment began
December 14, 2007	Public Comment ended

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this Tier II and PTC.

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5.1 Equipment Listing

Table 5.1 provides a list of the regulated sources in this permit.

Table 5.1 SUMMARY OF EMISSIONS SOURCES AND EMISSIONS CONTROLS

Emissions Source Description	Emissions Control
Trim End Hog	10 RA Baghouse (C17)
Wood Storage Silo	8 RA Baghouse (C18)
Primary Hammermill	Donaldson Baghouse (C3)
Secondary Hammermill	Big Mac Baghouse (C22)
Storage Silo	Noltec Storage Silo Baghouse (C1A)
Wood Dryer #1	Entec Dryer #1 Baghouse (C15)
Wood Dryer #2	Entec Dryer #2 Baghouse (C16)
Finishing Line #1	Line #10 Molder Baghouse (C12)
Finishing Line #2	Line #11 Molder Baghouse (C13)
Finishing Line #4	Line #12 Molder Baghouse (C21)
HDPE Storage Silo #4	HDPE Silo Bin Vent #1 (C7)
Dry Wood Day Bin #1	Dry Wood Day Bin Filter #1 (C23)
Dry Wood Day Bin #2	Dry Wood Day Bin Filter #2 (C24)

5.2 Emissions Inventory

Emissions have not increased as a result of this permitting action. Emissions from PTC No. P-050039 have been incorporated into this permit renewal. The primary pollutant of concern is PM₁₀. A summary of emission rate limits is provided in Table 5.2.

Table 5.2 SUMMARY OF EMISSION RATE LIMITS

Emissions Point	Hourly PM ₁₀ Emissions (lb/hr)	Annual PM ₁₀ Emissions (T/yr) ^a
10 RA Baghouse (C17)	0.87	3.80
8 RA Baghouse (C18)	0.39	1.73
Donaldson Baghouse (C3)	0.279	1.22
Big Mac Baghouse (C22)	0.48	2.09
Noltec Storage Silo Baghouse (C1A)	0.014	0.06
Entec Dryer #1 Baghouse (C15)	0.39	1.73
Entec Dryer #2 Baghouse (C16)	0.39	1.73
Line #10 Molder Baghouse (C12)	0.26	1.13
Line #11 Molder Baghouse (C13)	0.27	1.19
Line #12 Molder Baghouse (C21)	0.25	1.10
HDPE Silo Bin Vent #1 (C7)	0.034	0.150
Dry Wood Day Bin Filter #1 (C23)	0.020	0.086
Dry Wood Day Bin Filter #2 (C24)	0.020	0.086
Total	2.79	16.10

a. Assumes 8,760 hr/yr operations.

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5.3 Ambient Air Quality Impact Analysis

This Tier II renewal also incorporates PTC No. P-050039, issued March 7, 2006. Modeling was completed for PTC No. P-050039 for all of the emissions sources in this permit renewal. This permitting action does not change the modeling analysis which was prepared for PTC No. P-050039. Therefore, modeling was not required for this permitting action.

6. REGULATORY REVIEW

This section describes the regulatory analysis of the applicable air quality rules with respect to this T2 and PTC.

IDAPA 58.01.01. 404..... Permit Revision or Renewal

This permit revision does not change the applicability of the regulations of the original Tier II operating permit issued July 12, 2002. This permit revision is subject to IDAPA 58.01.01.404.04 Permit Revision or Renewal.

6.1 Attainment Designation (40 CFR 81.313)

The facility is located in Ada County which is designated as attainment or unclassifiable for PM₁₀, PM_{2.5}, CO, NO₂, SO_x, and Ozone. Reference 40 CFR 81.313.

6.2 Permit Conditions Review

This Tier II renewal has been reformatted, renumbered, and updated, and it incorporates PTC No. P-050039 permit conditions. Fugitive and visible emissions requirements are now addressed in the facility-wide permit conditions under Section 2. As part of the updating, the permittee is required to retain specified records onsite for five years rather than two years. Additionally, all O&M Manuals are to be submitted to DEQ.

References to the following sources have been removed from this Tier II permit renewal because they were either not installed or they are no longer in operation: Shavings truck dump filter receiver (C2), trim ends tipper bin dump (C4), trim ends baghouse (C5), HDPE silo bin vent (C8), HDPE silo bin vent (C9), HDPE transfer filter receiver (C10), and, shavings transfer filter receiver (C11). The board grinder baghouse (E45A) is not referenced in the Tier II permit renewal because it does not vent to the outside air as indicated in PTC No. P-050039.

The facility requested administrative name changes for emissions control devices to be incorporated into this Tier II renewal permit. Table 6.1 displays a summary of these changes.

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Table 6.1 SUMMARY OF EMISSIONS CONTROL DEVICE NAME CHANGES

Previous Emissions Control Device Name (source ID)	New Emissions Control Device Name (source ID)
Wood Handling Baghouse #1 (C17)	10 RA Baghouse (C17)
Wood Handling Baghouse #2 (C18)	8 RA Baghouse (C18)
BA Baghouse (C3)	Donaldson Baghouse (C3)
Sifter Baghouse (C22)	Big Mac Baghouse (C22)
Storage Silo Baghouse Stack (C1A)*	Noltec Storage Silo Baghouse (C1A)
Dryer #1 Baghouse (C15)	Entec Dryer #1 Baghouse (C15)
Dryer #2 Baghouse (C16)	Entec Dryer #2 Baghouse (C16)
Finishing Line Baghouse #1 (C12)	Line #10 Molder Baghouse (C12)
Finishing Line Baghouse #2 (C13)	Line #11 Molder Baghouse (C13)
Finishing Line Baghouse #4 (C21)	Line #12 Molder Baghouse (C21)
HDPE Silo Bin Vent (C7)	HDPE Silo Bin Vent #1 (C7)
Dry Wood Day Bin Vent #1 (C23)	Dry Wood Day Bin Filter #1 (C23)
Dry Wood Day Bin Vent #2 (C24)	Dry Wood Day Bin Filter #2 (C24)

*A source ID was not assigned previously to this device. The facility proposed a source ID of C1A, which has been incorporated into the permit.

6.3 State Implementation Plan

The EPA designates nonattainment areas to those parts of the country where the air exceeds the National Ambient Air Quality Standards (NAAQS) for one of the six criteria contaminants. State Implementation Plans (SIPs) set out control strategies to reduce air pollution in nonattainment areas. EPA requires states to adopt SIPs for all nonattainment areas, and to periodically evaluate the effectiveness of the strategies prescribed in each SIP.

In Idaho, Ada County was designated as nonattainment for PM₁₀. Consequently, DEQ submitted a PM₁₀ maintenance plan and redesignation request for the Ada County/Boise, Idaho area on September 27, 2002, and provided supplemental information on July 10, 2003 and July 21, 2003.

DEQ adopted a SIP to restore the PM₁₀ standards in the Ada County/Boise, Idaho area. EPA approved a PM₁₀ SIP maintenance plan for the Ada County area.

Louisiana-Pacific Corporation (LP Wood Polymers) was included in the SIP. Specifically, the following four Permit Conditions from Tier II Operating Permit No. 001-00115, issued July 12, 2002, are part of the Idaho SIP:

1.1 Emissions Limits (First SIP condition)

Particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM₁₀) emissions from the storage silo baghouse stack, baghouse stacks associated with the conversion project, filter receivers, cartridge filters, and grinder baghouse (BH1) shall not exceed the pounds per hour (lb/hr) and the tons per any consecutive 12-month period (T/yr) limits listed in Appendix. (i.e., forth SIP condition).

1.3 Visible Emissions Limits (Second SIP condition)

Visible emissions shall not be observed leaving the property boundary for a period or periods aggregating more than three minutes in any 60-minute period. Visible emissions shall be determined by Environmental Protection Agency Reference Method 22 (as described in 40 CFR 60), the Appendix, or a department-approved alternative method.

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3.1 Monitor Operation Parameters (Third SIP condition)

The permittee shall monitor and record on a weekly basis, the pressure drop across each baghouse, receiver filter, and cartridge filter. The most recent two years' compilation of records shall be kept onsite, in a record, and shall be made available to department representatives upon request.

Appendix (Forth SIP condition)

**Appendix
LP Wood Polymers, Inc.
Hourly (lb/hr)^b and Annual^c (T/yr)^d Point Source Emissions Limits^a**

SOURCE	PM ₁₀ ^e	
	lb/hr	T/yr
Storage Silo Baghouse Stack	0.014	0.06
Combined emissions of Baghouses, receiver filters, and cartridge filters from Conversion Project with associated vehicle traffic	0.6	2.62
Grinder Baghouse (BH1)	0.09	0.39
Totals	0.704	3.07

^aAs determined by a pollutant-specific U.S. EPA reference method, Department-approved alternative, or as determined by the department emissions estimation methods used in the permit application analysis.

^bPounds per hour

^cAs determined by multiplying the actual or allowable (if actual is not available) lb/hr emissions rate by the allowable hours per year that the process(es) may operate, or by actual annual production rates.

^dTons per year

^ePM₁₀ - particulate matter with an aerodynamic diameter of 10 microns or less.

First SIP Condition

The SIP included Tier II Operating Permit Condition 1.1. This condition has been updated in the permit as Permit Condition 3.3 as shown below.

3.3 Emission Limits

The PM₁₀ emissions from the wood handling system baghouse stacks shall not exceed any corresponding emissions rate limits listed in Table 3.2.

Table 3.2 WOOD HANDLING SYSTEM BAGHOUSE EMISSIONS LIMITS*

Source Description	PM ₁₀	
	lb/hr	T/yr
10 RA Baghouse (C17)	0.87	3.80
8 RABaghouse (C18)	0.39	1.73
Donaldson Baghouse (C3)	0.28	1.22
Big Mac Baghouse (C22)	0.24	2.09
Noltec Storage Silo Baghouse (C1A)	0.014	0.06

*The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

Updated Permit Condition 3.3 includes the Noltec Storage Silo Baghouse and the Donaldson Baghouse. The Noltec Storage Silo Baghouse was included in Tier II Operating Permit No. 001-00115 as the Storage Silo Baghouse Stack. The Donaldson Baghouse was included in Tier II Operating Permit No. 001-00115 as one of the combined baghouses (referenced as BA Baghouse) from the conversion project. The Donaldson Baghouse is the only source remaining from the combined sources referenced in the existing Tier II, resulting in less emissions of PM₁₀. The

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Grinder Baghouse (BH1) is no longer an emission source because it is located in an enclosed building and therefore has been removed from the updated Permit Condition 3.3.

The aspects of updated Permit Condition 3.3 do not increase the PM₁₀ emissions (actually they are less now) for the sources listed in Existing Permit Condition 1.1.

Updated Permit Condition 3.3 also incorporates specific sources which were included in PTC No. P-050039.

Second SIP Condition

The SIP includes Tier II Operating Permit No. 001-00115, Permit Condition 1.3. This permit condition has been moved to Facility-Wide Conditions, 2.8, and is otherwise unchanged.

Third SIP Condition

The SIP includes Tier II Operating Permit No. 001-00115, Permit Condition 3.1. This permit condition has been updated as Permit Condition 3.7. References to receiver and cartridge filters have been removed, as they no longer are part of the process. Records must now be retained for five years instead of two years.

3.7 Monitor Operating Parameters

The permittee shall monitor and record the pressure drop across wood handling system baghouses once per week while the baghouses are operating. Records of this information shall remain onsite for the most recent five-year period, and shall be made available to DEQ representatives upon request.

The updated Permit Condition 3.7 complies with the SIP because monitoring and recordkeeping of the applicable baghouse pressure drop is still required on a weekly basis.

Fourth SIP Condition

The SIP includes Tier II Operating Permit No. 001-00115, Appendix. The Appendix has been replaced by Table 7.1, which summarizes the emission rate limits. Applicable information from the Appendix remains in Table 7.1 and is explained below the table.

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Location:	Meridian, Idaho	Facility ID No. 001-00115

Table 7.1 SUMMARY OF EMISSION RATE LIMITS

Emissions Point	Hourly PM ₁₀ Emissions (lb/hr) ^a	Annual PM ₁₀ Emissions (T/yr) ^a
10 RA Baghouse (C17)	0.87	3.80
8 RA Baghouse (C18)	0.39	1.73
Donaldson Baghouse (C3) ^{b, c}	0.279	1.22
Big Mac Baghouse (C22)	0.48	2.09
Noltec Storage Silo Baghouse (C1A) ^b	0.014	0.06
Entec Dryer #1 Baghouse (C15)	0.39	1.73
Entec Dryer #2 Baghouse (C16)	0.39	1.73
Line #10 Molder Baghouse (C12)	0.26	1.13
Line #11 Molder Baghouse (C13)	0.27	1.19
Line #12 Molder Baghouse (C21)	0.25	1.10
HDPE Silo Bin Vent #1 (C7) ^d	0.034	0.150
Dry Wood Day Bin Filter #1 (C23)	0.020	0.086
Dry Wood Day Bin Filter #2 (C24)	0.020	0.086
Total	2.79	16.10

- a. Assumes 8,760 hr/yr operations.
- b. From Tier II Operating Permit No. 001-00115, Appendix, which is part of the Idaho SIP
- c. These emissions have decreased as compared to Tier II Operating Permit No. 001-00115 Appendix because all of the conversion project sources (with the exception of the Donaldson Baghouse) are no longer operational and therefore have no emissions. Originally this portion of the Appendix had emissions limits of 0.6 lb/hr and 2.62 T/yr as compared to now at 0.279 lb/hr and 1.22 T/yr. Totals for the point source emissions in the Tier II Operating Permit No. 001-00115 Appendix were 0.704 lb/hr and 3.07 T/yr. The totals for these sources are now 0.293 lb/hr and 1.28 T/yr.
- d. Listed in Tier II Operating Permit No. 001-00115 Technical Analysis, but not in the permit.

The aspects of Table 7.1 do not increase the PM₁₀ emissions (actually they are less now) for the sources listed in the existing Appendix.

Table 7.1 also incorporates specific sources which were included in PTC No. 050039.

Additionally, the facility is now named Fiber Composites, LLC, and a name change does not compromise the permit conditions included in the SIP.

7. PERMIT FEES

The Tier II Operating Permit Processing Fee for this facility is based on permitted emissions. In accordance with IDAPA 58.01.01.407.01, a Tier II Operating Permit processing fee of \$5,000.00 is due because permitted emissions are more than 10 tons per year, but less than 100 tons per year.

The Tier II processing fee is due within 45 days of receipt of an assessment. In accordance with IDAPA 58.01.01.408.02, failure to submit a Tier II operating permit processing fee within 45 days of receipt of an assessment from DEQ will result in a monthly accrual of interest in the amount of twelve percent (12%) per annum on the outstanding balance until the fee is paid in full.

8. PUBLIC COMMENT

A public comment period was conducted from November 15, 2007, to December 14, 2007. During this time, there were no comments on the proposed action.

APPENDIX – AIRS INFORMATION

AIRS/AFS^a FACILITY-WIDE CLASSIFICATION^b DATA ENTRY FORM

Facility Name: Fiber Composites, LLC
Facility Location: Meridian, Idaho
AIRS Number: 001-00115

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION
								A-Attainment U-Unclassified N- Nonattainment
SO ₂	B							U
NO _x	B							U
CO	B							A
PM ₁₀	B							A
PT (Particulate)	B							---
VOC	B							U
THAP (Total HAPs)	B							---
			APPLICABLE SUBPART					

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).