Statement of Basis

Permit to Construct No. P-2016.0062
Project ID 61804

Merritt Brothers Lumber Co
Athol, Idaho

Facility ID 055-00039

Final

April 5, 2017
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The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS No.	Chemical Abstracts Service registry number
CBP	concrete batch plant
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
FEC	Facility Emissions Cap
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
HMA	hot mix asphalt
hp	horsepower
hr/yr	hours per consecutive 12 calendar month period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBF	million boardfeet
MMBtu/hr	million British thermal units per hour
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides

NSPS	New Source Performance Standards
O&M	operation and maintenance
O_2	oxygen
OSU	Oregon State University
PAH	polyaromatic hydrocarbons
PC	permit condition
PCB	polychlorinated biphenyl
PERF	Portable Equipment Relocation Form
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
Tier II/PTC	permit to construct and Tier II operating permit
PTE	potential to emit
PW	process weight rate
RAP	recycled asphalt pavement
RFO	reprocessed fuel oil
RICE	reciprocating internal combustion engines
Rules	*Rules for the Control of Air Pollution in Idaho*
scf	standard cubic feet
SCL	significant contribution limits
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
Tier II/PTC	Tier II operating permit
TAP	toxic air pollutants
TEQ	toxicity equivalent
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd^3	cubic yards
$\mu g/m^3$	micrograms per cubic meter

FACILITY INFORMATION

Description

Green and dry lumber is delivered to the facility. Green lumber is dried in one of five dry kilns, and all dry lumber is finished in the planer mill. Planing produces shavings and a small amount of dry chips. A hammer hog in the planer mill building is used to break up any larger wood scraps. The planer shavings, chips, and hogged wood are transported pneumatically to Cyclone No.4, located on the truck bin. Baghouse No. 4, connected in series, controls particulate matter (PM) emissions from Cyclone No. 4. Shavings, chips, and hogged wood are loaded into trucks from the bottom of the shavings bin for off-site transport. Loading planer chips and shavings into trucks from the bin is a source of fugitive particulate emissions, and the area under the shavings bins is enclosed to control dust. Baghouse No. 4 is the point source of PM emissions from the planer mill.

Dry lumber and dry trim ends are delivered to the finger-joint building. Finger-jointing produces shavings and a small number of dry chips. A hammer hog in the finger-joint mill is used to break up any larger wood scraps. The shavings and hogged wood are transported pneumatically to cyclone No. 5 and No. 6. Both cyclones share a pull through shavings bin for off-site transport. Loading finger-joint chips and shavings into trucks from the bin is a source of fugitive particulate emissions, and the area under the shavings bin is enclosed to control dust.

Exhaust from the dry kilns is routed to heat exchangers and exhausts through the five heat exchanger stacks, which are point sources. Emissions from the dry kilns include PM, volatile organic compounds (VOC), and hazardous air pollutants (HAP). The dry kilns are heated using non-contact steam coils, with the steam supplied by two natural gas-fired boilers (Boiler No. l and Boiler No. 2). The natural gas-fired boilers are point sources of PM, oxides of nitrogen (NOx), sulfur dioxide (SO_2), carbon monoxide (CO), VOC, lead, and greenhouse gases.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

November 19, 2007	P-2007.0156, renewal of the facility's Tier II Operating Permit and Permit to Construct (Tier II/PTC). Permit status (A, but will become S upon issuance of this permit.)
September 28, 2007	P-2007.0186, limiting facility-wide HAP emissions below the respective major source thresholds to avoid "plywood" and "boiler" MACT standards, Permit status (S)
March 15, 2005	T2-040121, installing the fifth lumber dry kiln, Permit status (S)
September 13, 2004	P-040106, installing second natural gas-fired boiler and the fourth lumber dry kiln, Permit status (S)
February 6, 2004	P-030103, increasing daily hours of operation from two eight-hour to two 10-hour shifts per day, Permit status (S)
November 26, 2002	055-00039, the facility-wide operating permit was triggered due to the construction of the natural gas-fired boiler, wood working equipment, and three lumber dry kilns at the facility without first obtaining a PTC, Permit status (S)
October 22, 1992	055-00039, construction of a lumber remanufacturing facility, Permit status (S)

Application Scope

This permit to construct (PTC) is for converting facility's Tier II/PTC to a PTC.

Application Chronology

October 31, 2016	DEQ received an application.

November 1, 2016	DEQ received an application fee.
December 1, 2016	DEQ determined that the application was complete.
January 12, 2017	DEQ made available the draft permit and statement of basis for peer and regional office review.
January 30, 2017	DEQ made available the draft permit and statement of basis for applicant review.
February 10, 2017	DEQ received the permit processing fee.
April 5, 2017	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

This PTC is for converting facility's Tier II/PTC to a PTC. No changes are made in the permit, or at the facility; therefore, technical analyses are not conducted for this permitting action.

For technical information and analysis regarding this facility, refer to statements of basis for previous permits issued to the facility, including the Tier II/PTC No. P-2007.0156 issued on November 19, 2007. (2011AAG2914)

REGULATORY ANALYSIS

This PTC is for converting facility's Tier II/PTC to a PTC. No changes are made in the permit, or at the facility; therefore, only new regulatory analysis is discussed in this section. For other regulatory analysis, refer to statements of basis for previous permits issued to the facility, including the Tier II/PTC No. P-2007.0156 issued on November 19, 2007. (2011AAG2914)

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 ..... Permit to Construct Required

The permittee has requested to convert the Tier II/PTC to a PTC. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

MACT Applicability (40 CFR 63)

This permitting action does not alter the applicability status of existing affected sources at the facility.

After the Tier II/PTC issued on 11/19/2007, an area source NESAHP for boilers was promulgated in 2011. Because the boilers at the facility are natural gas-fired boilers, they are not subject to 40 CFR 63 Subpart JJJJJJ-National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, in accordance with 40 CFR 63.11195.

Permit Conditions Review

This section describes only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Permit Condition 2.10

IDAPA 58.01.01.600-616 is changed to IDAPA 58.01.01.600-624 as the Rules have been revised since the Tier II/PTC issued on 11/19/2007.

General Provisions

General Provisions are updated using current PTC template.

PUBLIC REVIEW

Public Comment Opportunity

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04.

APPENDIX A – PROCESSING FEE

N	Does this facility qualify for a general permit (i.e., concrete batch plant, hot-mix asphalt plant)? Y/N
N	Did this permit require engineering analysis? Y/N
N	Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_X	0.0	0	0.0
SO_2	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	**0.0**
Fee Due	**$250.00**		