

Statement of Basis

**Permit to Construct No. P-2015.0003
Project ID 61468**

**Lignetics of Idaho, Inc.
Kootenai, Idaho**

Facility ID 017-00029

Final

**November 2, 2015
Randy Stegen *RS*
Permit Writer**

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.

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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
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CMS	continuous monitoring systems
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	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
GHG	greenhouse gases
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
lb/qtr	pound per quarter
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
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
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
ppm	parts per million
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SCL	significant contribution limits
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
U.S.C.	United States Code
VOC	volatile organic compounds
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

Lignetics is a sawdust and shavings pelletizing plant. The facility processes sawdust and shavings from lumber mills into wood pellets and Presto logs. The sawdust and shavings is dried in a drum dryer heated by wood, natural gas, No. 2 fuel oil, used-oil-derived fuel, or a mixture of No. 2 fuel oil and used-oil-derived fuel. The dried sawdust and shavings are pneumatically conveyed to a hammer mill and pellet mill. A portion of the dried sawdust is conveyed to a material grinder which grinds the sawdust prior to burning in the wood-fired burner.

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).

August 5, 1991	DEQ issued the initial PTC for the wood pelletizing plant, Permit status – (S)
October 9, 1992	DEQ amended the PTC for the wood pelletizing plant, Permit status – (S)
November 22, 1995	DEQ amended the PTC for the wood pelletizing plant, Permit status – (S)
October 28, 1996	DEQ amended the PTC for the wood pelletizing plant, Permit status – (S)
April 2, 2003	P-000126, PTC modification to allow the combustion of a mixture of No. 2 fuel oil and used-oil derived fuel in addition to natural gas in the drum dryer, Permit status – (S)
November 17, 2006	P-060119, PTC modification to install new dryer line and supplemental wood fuel grinder, Permit status - (A, but will become S upon issuance of this permit)

Application Scope

This PTC is for a modification at an existing minor facility. The purpose of this permitting action is to meet the requirements of the April 21, 2014 Consent Order between Lignetics, Inc. and the Idaho DEQ for enforcement case Nos. E-2013.0003 and E-2013.0007. Item 12.F.ii of the Consent Order requires Lignetics to modify the existing PTC. The modification does not include any changes to equipment or methods of operation at the facility.

Application Chronology

April 21, 2014	DEQ issued a Consent Order to the facility, which requires the facility to modify the existing PTC.
January 13, 2015	DEQ received an application and an application fee.
Jan. 27 – Feb. 11, 2015	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
February 12, 2015	DEQ determined that the application was complete.
April 8, 2015	DEQ made available the draft permit and statement of basis for peer and regional office review.
April 17, 2015	DEQ made available the draft permit and statement of basis for applicant review.
April 17, 2015	DEQ received the permit processing fee.
August 28, 2015	DEQ revised the draft permit and statement of basis and made them available for peer and regional office review.
October 22, 2015	DEQ made available the revised draft permit and statement of basis for applicant review.
November 2, 2015	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Source ID No.	Sources	Control Equipment	Emission Point ID No.
	Wood-furnish Dryer	High Efficiency Primary Cyclone and Quad Multiclone	
	Fines Cyclone Stack	Cyclone	
	Pellet Cooler Stack	Cyclone	

Emissions Inventories

This project is a PTC modification to meet the requirements of the April 21, 2014 Consent Order. Permit conditions will be revised to meet the requirements of the consent order and updated for consistency with current permitting practices. The PTC modification does not include any changes to equipment or methods of operation at the facility. Allowable emissions will not change as a result of this permitting action. For a complete emission inventory, refer to the Statement of Basis issued July 12, 2006. All emission rates and limits in the existing PTC are carried over with no change as a result of this permitting action.

Ambient Air Quality Impact Analyses

Emissions will not increase as a result of this permitting action, thus the ambient air quality impact analysis is not required.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Bonner County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the proposed modification. 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.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400-410 were not applicable to this permitting action.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 Visible Emissions

The sources of PM₁₀ emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Condition 2.9.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM10, SO2, NOx, CO, or VOC, or 10 tons per year for any one HAP or 25 tons per year for all HAPs combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

The facility is not subject to any NSPS requirements 40 CFR Part 60.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

The facility is not subject to any MACT standards in 40 CFR Part 63.

Permit Conditions Review

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

Existing Table 1.1

Table 1.1 has been revised to clarify the dryer is heated by a wood-fired burner or multi-fuel burner.

Existing Permit Condition 2.4

This permit condition has been revised so that the annual emission limit for arsenic is shown in T/yr rather than lb/yr. The emission limit has not changed but has only been converted from lb/yr to T/yr.

Existing Permit Condition 2.5

This permit condition has been revised so that the annual emission limit for hexavalent chromium is shown in T/yr rather than lb/yr. The emission limit has not changed but has only been converted from lb/yr to T/yr.

Existing Permit Condition 2.6

This permit condition has been revised so that the annual emission limit for nickel is shown in T/yr rather than lb/yr. The emission limit has not changed but has only been converted from lb/yr to T/yr.

Existing Permit Condition 2.13

This permit condition has been revised to limit wood furnish feed to the dryer to 20 tons per hour and 480 tons per day because the facility could not meet the permitted emission limits during the most recent performance test when the wood furnish feed rate was 20.7 tons per hour or greater (See the September 23, 2014 test review letter, 2014AAI2437). The previous permit limit was 650 tons per day.

Existing Permit Condition 2.14

This permit condition was clarified to specify that “no fuel throughput” limit would apply. Previously this condition read as “no throughput”.

Existing Permit Condition 2.15

The IDAPA reference has been updated to IDAPA 58.01.01.725.

Existing Permit Condition 2.17

This permit condition has been revised to describe the fuel mixture usage limit as 210 gallons per hour to remove ambiguity.

Existing Permit Condition 2.21

The term “dryer temperature” has been changed to “dryer inlet temperature” to better clarify the item being measured.

The following bullet points were added to this permit condition to comply with the requirements of the April 21, 2014 consent order, section 12.E:

- The permittee shall monitor the dryer inlet temperature continuously and record the temperature at least once per hour, as specified in Permit Condition 2.28.
- The permittee shall install, maintain, and operate automatic controls that will shut down fuel feed to the burner if the dryer inlet temperature exceeds 950° F.

The maximum dryer inlet temperature has been changed from 1,200° F to 1,000° F and the setpoint for the automatic control to shut down fuel feed to the burner has been changed from 1,150° F to 950° F because the facility could not meet the permitted emission limits during the most recent performance test when the dryer inlet temperature was 1,085° F or greater. The setpoint of 1,000° F was specified based on the performance testing results at a temperature DEQ believes the emission limits will not be exceeded. The 950° F automatic dryer shutdown temperature was specified because that setpoint will provide a 50° F margin to minimize the possibility that the 1,000° F maximum temperature is exceeded.

Existing Permit Condition 2.22

The following bullet points and paragraph were added to this permit condition to comply with the requirements of the April 21, 2014 consent order, section 15.D.i:

- Keeping driving areas clear of wood and soil that may become entrained into the atmosphere.
- Manage material stockpiles by limiting pile heights below the height of the fugitive dust netting, limiting material movement during periods of high wind events, and limiting exposed pile faces to high winds (e.g., wind breaks; vegetative or screens) such that fugitive dust emissions continuously demonstrate compliance with IDAPA 58.01.01.651, do not carry over the fugitive dust netting, and do not leave the property boundary.

The permittee shall conduct a weekly facility-wide inspection of potential sources of fugitive emissions during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If the fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

Existing Permit Condition 2.23

Detail was added to this permit condition to clarify the requirements of the operations and maintenance manual at the request of the permittee. The added text is as follows:

The manual shall be a permittee developed document independent of the manufacturer supplied operating manual but may include summaries of procedures included in the manufacturer supplied operating manual

At a minimum, the O&M manual shall:

- Be based on manufacturer's information to the extent practical. When the manufacturer's information is not used, other supporting information such as operating parameters measured during a successful performance test shall be included in the manual.
- Include procedures to determine if cyclones are not functioning properly.
- Include the frequency that the physical inspections are to occur.
- Include a record of the results of each inspection and any corrective action taken in response to the results of the inspection.

Existing Permit Condition 2.25

This permit condition was modified to clarify that the records regarding fuel switching shall include specifying which fuel is currently being used.

Existing Permit Condition 2.27.1

This permit condition was modified to clarify that the permittee shall maintain records of the weight of wood furnish feed to the dryer for each hour of operation.

Existing Permit Condition 2.28

This permit condition was modified to clarify that the permittee shall maintain records of the highest temperature monitored during each hour of operation.

Existing Permit Condition 2.29

Minor revisions/additions to the text of this permit condition to comply with the requirements of the April 21, 2014 consent order, section 11.C.ii.a.

New Permit Condition 2.30

This permit condition was added to comply with the requirements of the April 21, 2014 consent order, section 11.D.i.

New Permit Condition 2.31

This permit condition was added to comply with the requirements of the April 21, 2014 consent order, section 11.D.i.

New Permit Condition 2.32

This permit condition was added to comply with the requirements of the April 21, 2014 consent order, section 11.D.i.

New Permit Condition 2.33

This permit condition was added to comply with the requirements of the April 21, 2014 consent order, section 11.D.i.

New Permit Condition 2.38

This permit condition was added to comply with the requirements of the April 21, 2014 consent order, section 12.F.ii and section 13.B. This permit condition also contains a provision for the facility to conduct an earlier performance test for the purpose of supporting a permit modification to change the fuel feed limit (permit condition 2.13), dryer temperature limit (permit condition 2.21), or automatic fuel feed shutdown setpoint (permit condition 2.21).

New Permit Condition 2.39

This permit condition was added to establish that DEQ encourages the submittal of a performance test protocol 30 days prior to the performance test date. Ongoing performance testing is required by the April 21, 2014 consent order.

New Permit Condition 2.40

This permit condition was added to establish where the performance test reports shall be sent. Ongoing performance testing is required by the April 21, 2014 consent order.

PUBLIC REVIEW***Public Comment Opportunity***

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – FACILITY DRAFT COMMENTS

The facility commented on the first draft PTC. The draft PTC was then revised and the facility was provided an opportunity to review and comment on the revised draft PTC. The facility had no comments on the revised draft PTC.

APPENDIX B – PROCESSING FEE

PTC Fee Calculation

Instructions:

Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Lignetics, Inc
 Address: PO Box 1706
 City: Sandpoint
 State: ID
 Zip Code: 83864
 Facility Contact: Ken Tucker
 Title: General Manager
 AIRS No.: 017.00029

- N Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
- y 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
TAPPS/HAPS	0.0	0	0.0
Total:	0.0	0	0.0
Fee Due	\$ 1,000.00		

Comments: