

Boise Cascade Company  
Inland Region  
1917 Jackson Ave.  
La Grande, Oregon 97850



June 17, 2013

Bill Rogers, Permit Coordinator  
Air Division, Stationary Source  
Idaho Department of Environmental Quality  
1410 North Hilton  
Boise, ID. 83706

**RE: Revised Permit to Construct, Filler King, Glulam Beam and Deck Facility, Boise Cascade Wood Products, LLC, Permit to Construct P-2008.0150 (Facility ID 073-00008)**

As discussed, we are submitting revisions to the existing PTC as referenced above, which includes the following:

- 1) A marked-up copy of the PTC. An email copy was also sent to you with Word Track Changes shown. I believe changes we agreed to at our meeting on 12/27/12 have been incorporated into the PTC. Note also that we have changed the name of the facility to Homedale Beam and Deck Plant.
- 2) Potential air toxics in the various resin products used are shown in the spreadsheet attached "Toxics in Resin Products Purchased 2012." The concentration of free formaldehyde in those products has not increased since the PTC application was submitted in 2008 (CH2M- Hill, 2008). Also, catalyst use in 2012 was 190,542 lbs and the PTC limit is 289,828 lbs. However, the highest concentration of free formaldehyde in the catalysts used is 2.09%, and the existing PTC restricts free formaldehyde to 2.00%. On a weighted average basis (using the total pounds/yr of all catalysts used and the respective % free formaldehyde), the average concentration of free formaldehyde is less than 2.0%. Nevertheless, we are proposing to increase the allowable free formaldehyde concentration in catalysts to 2.1%.
- 3) At the time the PTC was submitted and continuing today, 18 resin, catalyst and putty products may be used at the facility. To simplify the analysis, the original air toxics assessment completed by CH2M-Hill (2008) assumed all beam and deck production used only one resin and catalyst combination. To determine if this approach was representative, we compared air toxics emissions test data (lb of air toxic/lb of resin) among the various resins and catalysts used, which is summarized in the attached spreadsheet "Comparison, Air Toxics Emissions Rates Among Resins and Catalysts." This comparison shows that the approach used by CH2M-Hill was representative, and that regardless of the resin or catalyst combination used, only formaldehyde emissions would exceed the IDAPA 58 Screening Rate (lb/hr). Therefore we believe the assessment completed by CH2M-Hill (2008) is still valid under current operating conditions.
- 4) A draft copy of the proposed Baghouse and Cyclone Operation, Monitoring and Maintenance Manual (BCOM3) is enclosed for your review. Facility has a separate Fugitive Emissions Control Plan, which is not included in the BCOM3.
- 5) A change in the method of operation is proposed for the radio frequency press at the Beam Plant Line 2 (RF Press). The RF Press will be automated through installation of controls and instrumentation, which will allow beams of varying lengths and widths to be run concurrently. A 2.1% increase is projected in gross beam production and therefore in beam plant air emissions of criteria pollutants and air toxics. We believe these air emissions increases are insignificant and do not warrant a permit modification.

Please review this submittal at your earliest convenience and do not hesitate to call me with questions at 541.962.2057.

Sincerely,



Bart Barlow  
Environmental Engineering Manager

**References:** CH<sub>2</sub>M Hill, Inc. February 7, 2008. Permit to Construct Application, and Dispersion Modeling, Filler King Company, Homedale, ID.

**Enclosures(3):** IDEQ Form GI and Check for \$1,000  
Notes/Recap of IDEQ/BC Meeting 12/27/12  
Mark-Up of PTC P-2008.0150  
Facility Air Emissions Points Figure 1 and 2  
Excel Spreadsheet: Toxics in Resin Products Purchased 2012.  
Excel Spreadsheet: Comparison, Air Toxics Emissions Rates Among Resins and Catalysts  
Baghouse and Cyclone Operation, Monitoring and Maintenance Manual (BCOM3)

Cc: via email w/enc.

Eric Lawrence, Mike Kharrl, Rick Isaacson, Greg Howard, Derrick Howard, Mike Smith

Inland Region File: AQ PTC (2013)



Please see instructions on back page before filling out the form. All information is required. If information is missing, the application will not be processed.

**Identification**

1. Facility name: Homedale Beam and Deck Plant (formerly Filler King)  
 2. Existing facility identification number: 073-00008  
 Check if new facility (not yet operating)  
 3. Brief project description: Modification of existing Permit to Construct P-2008.150

**Facility Information**

4. Primary facility permitting contact name: Environmental Engineering Manager  
 Contact type: Facility permitting contact  
 Telephone number: 541.962.2057  
 E-mail: bartbarlow@bc.com  
 5. Alternate facility permitting contact name: General Manager  
 Alternate contact type: Facility permitting contact  
 Telephone number: 208.337.3134  
 E-mail: ericlance@bc.com  
 6. Mailing address where permit will be sent (street/city/county/state/zip code): 1917 Jackson Ave  
 7. Physical address of permitted facility (if different than mailing address) (street/city/county/state/zip code): East Pioneer Rd, Homedale, ID. 83628  
 8. Is the equipment portable?  Yes\*  No \*If yes, complete and attach PERF; see instructions.  
 9. NAICS codes: Primary NAICS: 321213 Secondary NAICS:  
 10. Brief business description and principal product produced: Engineered Wood Products: GluLam Beams and Decking  
 11. Identify any adjacent or contiguous facility this company owns and/or operates: None

12. Specify type of application  Permit to construct (PTC); application fee of \$1,000 required. See instructions.  
 Tier I permit  Tier II permit  Tier II/Permit to construct

For Tier I permitted facilities only: If you are applying for a PTC then you must also specify how the PTC will be incorporated into the Tier I permit.

Co-process Tier I modification and PTC  Incorporate PTC at the time of Tier I renewal  Administratively amend the Tier I permit to incorporate the PTC upon applicant's request (IDAPA 58.01.01.209.05.a, b, or c)

**Certification**

In accordance with IDAPA 58.01.01.123 (Rules for the Control of Air Pollution in Idaho), I certify based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

13. Responsible official's name: Greg Howard  
 Official's title: Production Manager  
 Official's address: 1917 Jackson Ave. La Grande, OR 97850  
 Telephone number: 541.962.2190  
 E-mail: greghoward@bc.com  
 Official's signature: *Greg Howard*  
 Date: 7-2-13

14. Check here to indicate that you want to review the draft permit before final issuance.

**From:** [BartBarlow@BoiseBuilding.com](mailto:BartBarlow@BoiseBuilding.com) [<mailto:BartBarlow@BoiseBuilding.com>]  
**Sent:** Thursday, December 27, 2012 10:17 AM  
**To:** William Rogers  
**Cc:** [GregHoward@BoiseBuilding.com](mailto:GregHoward@BoiseBuilding.com); [RickIsaacson@BoiseBuilding.com](mailto:RickIsaacson@BoiseBuilding.com); [MikeKharrl@BoiseBuilding.com](mailto:MikeKharrl@BoiseBuilding.com); [EricLawrence@BoiseBuilding.com](mailto:EricLawrence@BoiseBuilding.com)  
**Subject:** Recap IDEQ/BC Mtg AQ Filler King 12/12/12

Thanks for meeting with me to review the existing Air Quality Permit to Construct for Filler King. Based on our meeting, I agreed to provide the IDEQ with the following in January 2013:

- 1) A revised Cover Page, IDEQ General Info Form GI and the required permit mod fee of \$1,000. Once the revised permit application is reviewed, IDEQ will advise BC regarding the required additional permit processing fee ~ \$1,000 to \$2,500.
- 2) A marked-up copy of the PTC with misc edits and the following substantive changes:
  - Remove wood stoves from permit—exempted by IDAPA 58.01.01.220.02.d.
  - Add designations for emission points (baghouse, cyclones, truck bins).
- 3) The following will also be provided and incorporated into the permit language as appropriate:
  - Proposed baghouse and cyclone operating and monitoring parameters.
  - Air toxics emissions rates for resins, catalysts and finished products and annual emission rates.
  - Proposed language regarding concentrations of formaldehyde or other air toxics in resins an catalysts.
  - A revised process flow diagram with emission points shown.

If you could provide me with a copy of the existing PTC as a WORD document, I could use Track Changes to propose edits. If not, I will send in a marked –up copy.

Please contact me with questions. Have a great New Year!

Bart Barlow  
Environmental Engineering Manager  
Inland Region  
Boise Cascade Wood Products, LLC  
1917 Jackson Ave.  
La Grande, OR 97850  
541.962.2057



**Air Quality  
PERMIT TO CONSTRUCT  
State of Idaho  
Department of Environmental Quality**

**PERMIT No.:** P-2008.0150  
**FACILITY ID No.:** 073-00008  
**AQCR:** 63    **CLASS:** B    **ZONE:** 11  
**SIC:** 2439    **NAICS:** 321213  
**UTM COORDINATE (km):** 507.2, 4827.6

**1. PERMITTEE**

~~Filler King Company~~ **Boise Cascade Wood Products LLC, Homedale Beam and Decking**

**2. PROJECT**

~~Updated and edited PTC~~ **Initial PTC for engineered wood products facility**

**3. MAILING ADDRESS**

P. O. Box 185

**CITY**

Homedale

**STATE**

ID

**ZIP**

83628

**4. FACILITY CONTACT**

~~Jim Griswold~~ **General Manager**

**TITLE**

General Manager

**TELEPHONE**

(208) 337.3134 -5471

**5. RESPONSIBLE OFFICIAL**

~~Wayne King~~ **Production Manager**

**TITLE**

~~Production Manager~~ **President and**

**TELEPHONE**

~~(541) 962.2190~~ **(208) 337 5471**

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**6. EXACT PLANT LOCATION**

East Pioneer Road, Homedale, **ID**

**COUNTY**

Owyhee

**7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**

Engineered wood products: **glulam beams and decking**

**8. PERMIT AUTHORITY**

This permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200 through 228, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes in design, equipment or operations may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 through 228 of the Rules for the Control of Air Pollution in Idaho.

CAROLE ZUNDEL, PERMIT WRITER  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**DATE MODIFIED/REVISED:**

**DATE ISSUED:**

February 24, 2009

MIKE SIMON, STATIONARY SOURCE PROGRAM MANAGER  
DEPARTMENT OF ENVIRONMENTAL QUALITY

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## Acronyms, Units, and Chemical Nomenclature

AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
DEQ	Department of Environmental Quality
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pounds per hour
MMBtu/hr	million British thermal units per hour
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
SIC	Standard Industrial Classification
T/yr	tons per year
UTM	Universal Transverse Mercator

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0150**

<b>Permittee:</b> Filler King Company	<b>Facility ID No.</b> 073-00008
<b>Location:</b> Homedale, Idaho	

**1. PERMIT TO CONSTRUCT SCOPE**

**Purpose**

1.1 The purpose of this permit is to issue an initial PTC for the facility.

**Regulated Sources**

1.2 Table 1.1 lists all sources of regulated emissions in this PTC.

**Table 1.1 SUMMARY OF REGULATED SOURCES<sup>(1)</sup>**

Permit Section	Source Description	Emissions Control
2.0	<del>Beam plant: Line 1 planer shavings, saws, finger jointer; Line 2 saw</del> Manufacturer: Buss Planers Model: 60" and 30" Date of construction: 1988 and January 2007	<del>Cyclone C-2+</del> Manufacturer: Western Pneumatics Control efficiency: 99% for PM Date of installation: 1988
2.0	<del>Beam plant sander</del> Manufacturer: Model: Date of construction: 1993	<del>Baghouse BH-1</del> Manufacturer: Murphy Rogers Control efficiency: 99% for PM <sub>10</sub> Date of installation: 1993
2.0	<del>Deck plant moulder, saws, sander, planer</del> Manufacturer: Madison Model: Madison Moulder Date of construction: 1993	<del>Cyclone C-3</del> Manufacturer: <b>Murphy Rogers</b> Control efficiency: 99% for PM <sub>10</sub> Date of installation: 1993
2.0	<del>Beam plant bin truck loading</del>	<del>Enclosure</del>
<del>2.0</del>	<del>Beam plant: Line 2 planers, sanders, saws, finger jointer</del>	<del>Cyclone C-1: Western Pneumatics Control efficiency: 99% for PM Date of installation: 1993</del>
<del>2.0</del>	<del>Deck plant grade line saw</del>	<del>Cyclone C-4 Manufacturer: <b>Murphy Rogers</b> Control efficiency: 99% Date of installation: 1993</del>
2.0	Deck plant bin truck loading	Enclosure
2.0	Emergency fire pump Manufacturer: Unknown Model: Unknown Rating: 75 brake horsepower Fuel: Diesel Sulfur content: 0.5% Date of construction: 1995 or earlier	None
2.0	<del>Three building heat wood stoves</del> Manufacturer: Shop constructed Rating: 0.11 MMBtu/hr Fuel: Wood Construction date: Prior to May 1, 1994.	<del>None</del>

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Comment [A1]: Removed per communication with IDEQ: actual testing showed input rating of < 1,000,000 btu/hr (see attached dataset)

Notes: (1) See Figure 1 and 2 for air emissions schematic. Dates of installation and efficiencies for Cyclones C-1 and C-4 are based on information estimates provided by previous facility owners.

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0150**

<b>Permittee:</b> Filler King Company	<b>Facility ID No. 073-00008</b>
<b>Location:</b> Homedale, Idaho	

**2. BEAM AND DECK PLANTS**

**2.1 Process Description**

The Filler King facility uses kiln dried lumber to manufacture laminated beams and laminated tongue and groove roof decking. Most of the kiln dried lumber used is Douglas Fir, but some Alaskan Cedar is used to produce specialty products. The facility consists of two manufacturing operations, laminated beams and a decking line.

The Beam Plant beam line is comprised of Line 1 and Line 2. In the beam lines, pre-dried, graded western softwood lumber is processed through a finger-joiner. In this process, the lumber ends are cut to a special joint, glued and joined, and cured in a radio frequency dryer to form long lengths of lumber. These finger-joined lumber pieces are then used for beam manufacture. In the beam plant, the cured lengths are glued face-to-face with adhesive to form large, structural beams. These beams are then clamped and cured. After curing, the beams are planed, finished, and wrapped for shipment to retail dealers.

In the roof laminated Deck Planting line, the lumber is graded, glue is applied face-to-face, and the lumber is placed in a cold press for curing. The ends are squared and cut with a tongue and groove (end-matched), and the deck boards are then molded. The roof deck members are sanded and wrapped for shipment to a retailer.

Supporting equipment and operations for these processes include lumber receiving and storage, glue receiving storage, mixing and transfer, maintenance and administrative buildings, equipment and raw material storage, finished product storage, a small fueling station, and storage of miscellaneous materials such as drums, metal, surplus parts, and other used items. For emergency fire control a fire pond is present on the site. The water to supply this pond is pumped from the Snake River to the pond with an electric surface water pump. A 75 hp diesel-powered emergency pump is present to pressurize the fire system in the event of a power outage. This diesel pump operates approximately 10 hours per year for testing or maintenance purposes. The pump would be operated as needed to address an emergency situation, if necessary.

Six shop-constructed wood stoves located in the Beam Plant Line 1 and Line 2 area and the Roof Deck plant provide room heat during cool weather periods. Testing in 2012 showed that the individual all of the stoves have a heat input rating of < 1,000,000 Btu/hr (see results attached). Because of this, the wood stoves are exempt from emissions controls permitting.

**2.2 Emissions Control Description**

**Table 2.1 EMISSIONS CONTROL DESCRIPTION**

Emissions Unit / Process	Emissions Control Device	Emissions Point <sup>(1)</sup>
Beam plant planer shavings Manufacturer: Buss Planers Model: 60" and 30" Date of construction: 1988 and January 2007	Cyclone C-21 Manufacturer: Western Pneumatics Control efficiency: 99% for PM Date of installation: 1988	2
Beam plant sander Manufacturer: Model: Date of construction: 1993	Baghouse BH-1 Manufacturer: Murphy Rogers Control efficiency: 99% for PM <sub>10</sub> Date of installation: 1993	1

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**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0150**

<b>Permittee:</b> Filler King Company	<b>Facility ID No. 073-00008</b>
<b>Location:</b> Homedale, Idaho	

Deck plant moulder Manufacturer: Madison Model: Madison Moulder Date of construction: 1993	Cyclone C-32 Manufacturer: Control efficiency: 99% for PM <sub>10</sub> Date of installation: 1993	3
Beam plant bin truck loading	Enclosure	2
Deck plant bin truck loading	Enclosure	3

Note: <sup>(1)</sup> Source: CH2M Hill PTC Application, February 2008.

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**Emissions Limits**

**2.3 Emissions Limits**

The formaldehyde emissions from the beam plant and deck plant stacks shall not exceed any corresponding emissions rate limits listed in Table 2.2.

**Table 2.2 BEAM AND DECK PLANTS EMISSIONS LIMITS**

Source Description	Formaldehyde T/yr <sup>(1)(2)</sup>
Beam plant	0.4
Deck plant	0.1

<sup>(1)</sup> On a 12-month rolling consecutive calendar month basis.

<sup>(2)</sup> Source: CH2M Hill PTC Application, February 2008; table showing chemical emissions calculations from process; assumptions: 724,559 lbs resin/yr, 289,828 lbs catalyst used.

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**2.4 Opacity Limit**

Emissions from the following stacks:

- Cyclones
- Baghouse
- Bins
- Fire pump
- Wood stoves

or any other stack, vent, or functionally equivalent opening associated with the beam plant and deck plant shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

**2.5 Sulfur Content**

The permittee shall not sell, distribute, use, or make available for use any distillate fuel oil containing the following percentages of sulfur:

- ASTM Grade 1 fuel oil - 0.3% by weight.
- ASTM Grade 2 fuel oil - 0.5% by weight.

**Operating Requirements**

**2.6 Wood Stove Fuel**

The wood stoves shall burn only wood without adhesives or other coatings.

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0150**

<b>Permittee:</b> Filler King Company	<b>Facility ID No. 073-00008</b>
<b>Location:</b> Homedale, Idaho	

**2.7 Throughput Limits**

The throughput of catalyst shall not exceed any corresponding limit in any consecutive 12-calendar-month period:

- 251,281 lbs in the beam plant
- 38,547 lbs in the deck plant

**2.8 TAP Content Limits**

The permit application shows that the ~~concentration of formaldehyde in the resin~~ **concentration of formaldehyde in the resin is less than 1%.** The concentration of formaldehyde in the catalyst shall not exceed 2.10%. If the formaldehyde concentration increases from these levels, the permittee shall notify the DEQ Boise Regional Office for permit evaluation and/or revision prior to using the new ~~catalyst formula~~.

**2.9 Sanderdust Baghouse**

The permittee shall operate a baghouse to control PM10 emissions from the beam plant.

***Monitoring and Recordkeeping Requirements***

**2.10 Visible Emissions Monitoring**

The permittee shall conduct a quarterly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either

a) take appropriate corrective action as expeditiously as practicable to eliminate the visible emissions. Within 24 hours of the initial see/no see evaluation and after the corrective action, the permittee shall conduct a see/no see evaluation of the emissions point in question. If the visible emissions are not eliminated, the permittee shall comply with b).

or

b) perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20%, as measured using Method 9, for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance to IDEQ.

The permittee shall maintain records of the results of each visible emission inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

**2.11 Throughput Monitoring**

The permittee shall monitor and record the following:

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<b>Permittee:</b>	Filler King Company	<b>Facility ID No.</b> 073-00008
<b>Location:</b>	Homedale, Idaho	

- the amount of catalyst used in pounds at the beam plant
- the amount of catalyst used in pounds at the deck plant

These records shall be compiled once per month and for each consecutive 12-calendar-month period.

**2.12 Formaldehyde Monitoring**

Records shall be maintained of the weight percent of formaldehyde in catalyst used.

**2.13 Cyclone and Baghouse Operations, Monitoring and Maintenance Manual**

**Permittee shall develop and implement a cyclone and baghouse operation, monitoring and maintenance manual. Included in the manual shall be those inspection, monitoring and maintenance requirements as needed to ensure each unit is operated at its highest reasonable efficiency.**

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0150**

**Permittee:** Filler King Company

**Location:** Homedale, Idaho

**Facility ID No. 073-00008**

**3. PERMIT TO CONSTRUCT GENERAL PROVISIONS**

***General Compliance***

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.  
[Idaho Code §39-101, et seq.]
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.  
[IDAPA 58.01.01.211, 5/1/94]
3. Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules and regulations.  
[IDAPA 58.01.01.212.01, 5/1/94]

***Inspection and Entry***

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
  - a. Enter upon the permittee's premises where an emissions source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
  - d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.[Idaho Code §39-108]

***Construction and Operation Notification***

5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:
  - a. A notification of the date of initiation of construction, within five working days after occurrence;
  - b. A notification of the date of any suspension of construction, if such suspension lasts for one year or more;
  - c. A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0150**

<b>Permittee:</b>	Filler King Company	<b>Facility ID No. 073-00008</b>
<b>Location:</b>	Homedale, Idaho	

- d. A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- e. A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211, 5/1/94]

**Performance Testing**

6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]

**Monitoring and Recordkeeping**

7. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0150**

**Permittee:** Filler King Company

**Location:** Homedale, Idaho

**Facility ID No.** 073-00008

***Excess Emissions***

8. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

**[IDAPA 58.01.01.130-136, 4/5/00]**

***Certification***

9. All documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

**[IDAPA 58.01.01.123, 5/1/94]**

***False Statements***

10. No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.

**[IDAPA 58.01.01.125, 3/23/98]**

***Tampering***

11. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

**[IDAPA 58.01.01.126, 3/23/98]**

***Transferability***

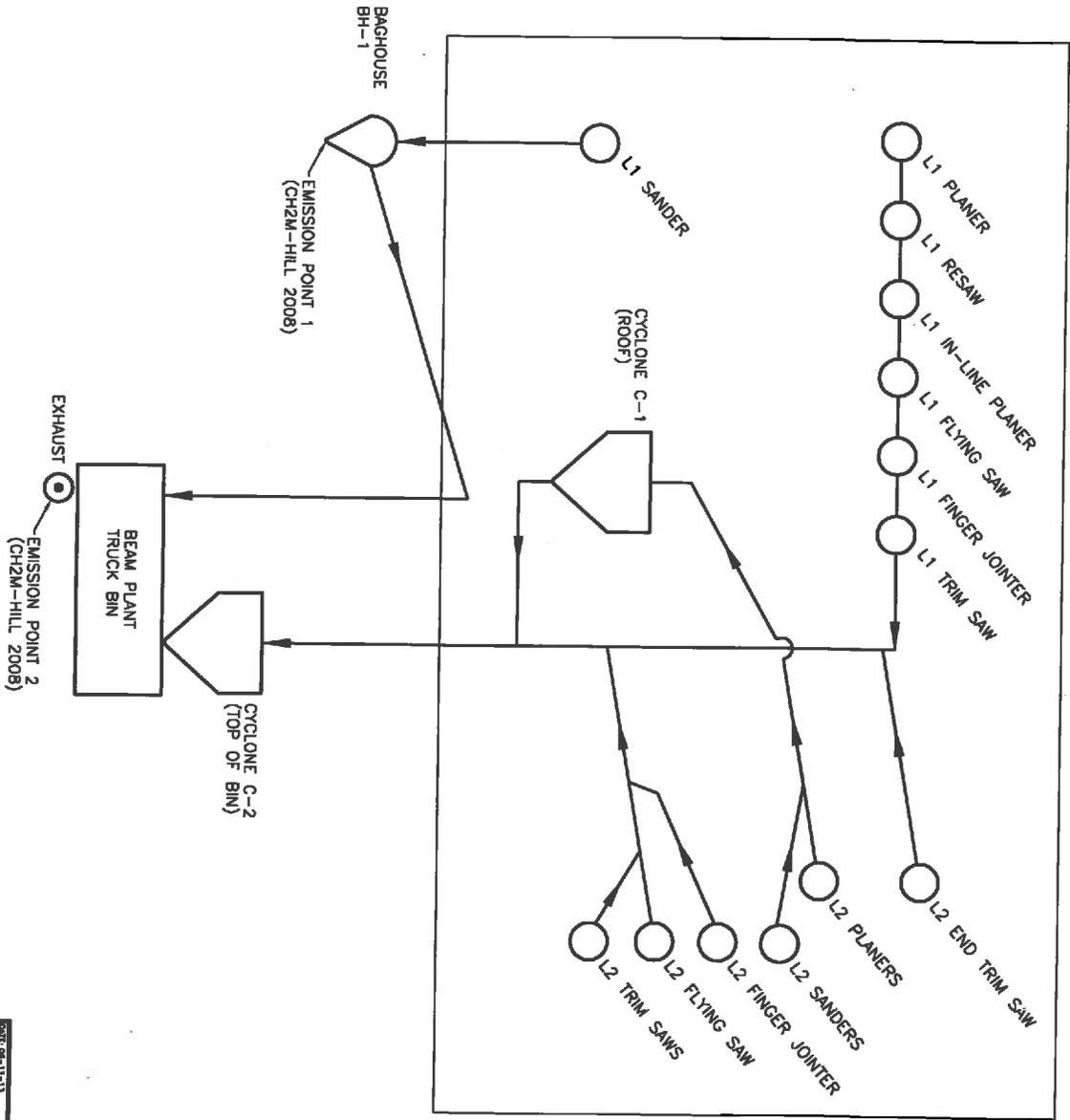
12. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

**[IDAPA 58.01.01.209.06, 4/11/06]**

***Severability***

13. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]**



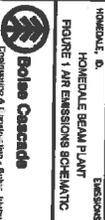
**MANUFACTURING:**

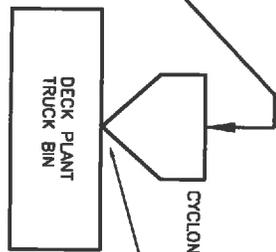
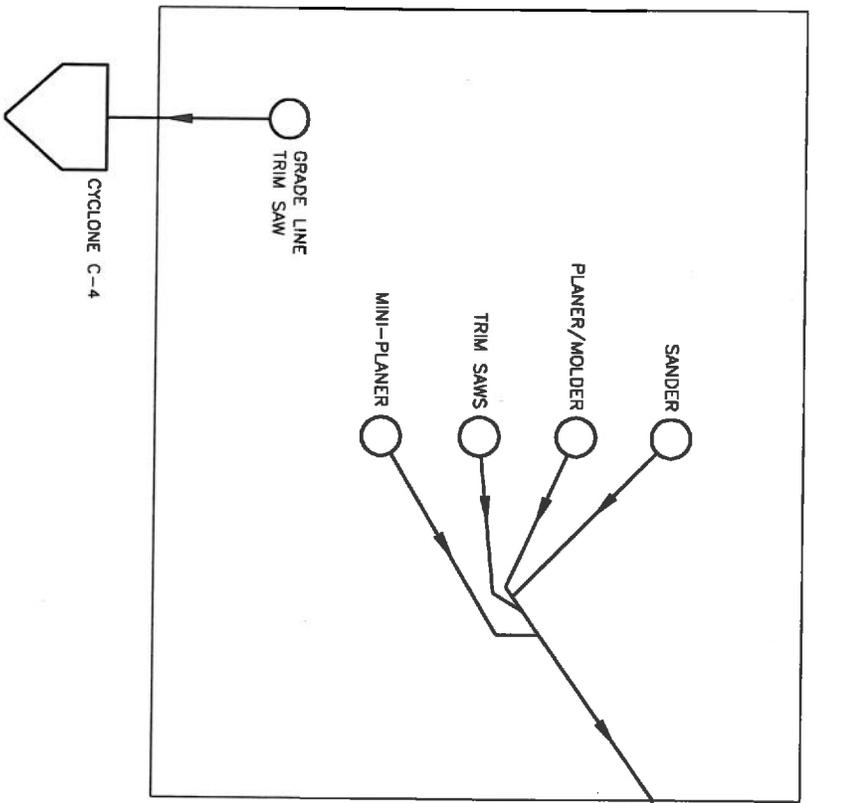
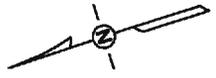
- L1 = LINE 1
- L2 = LINE 2

BOISE CASCADE WOOD PRODUCTS, LLC.  
 HONEDALE, ID BEAM & DECKING  
 PTC, P-2008.150

DATE: 08-11-13  
 FILE: 110HOM-AGEN-001

PROJECT NO.	110HOM-AGEN-001	DATE	08-11-13
PROJECT NAME	HONEDALE BEAM PLANT	SCALE	AS SHOWN
CLIENT	BOISE CASCADE WOOD PRODUCTS, LLC	DESIGNER	ENVIRONMENTAL ENGINEERS, INC.
PROJECT LOCATION	HONEDALE, ID	PROJECT NO.	110HOM-AGEN-001
PROJECT TYPE	EMMISSIONS SCHEMATIC	SCALE	AS SHOWN
PROJECT STATUS	1	DATE	08-11-13





EMISSION POINT 3  
(CH2M-HILL 2008)

BOISE CASCADE WOOD PRODUCTS, LLC.  
HONEDALE, ID. BEAM & DECKING  
PTC. P-2008.150

DATE: 08-11-13  
PRELIMINARY

PROJECT	1110HOM-AGEN-002
DATE	08-11-13
BY	AG
FOR	BOISE CASCADE WOOD PRODUCTS, LLC.
SCALE	AS SHOWN
NOTES	1. FOR ONE REVISION FOR LATEST REVISION. 2. DO NOT SCALE DRAWING.
PROJECT	1110HOM-AGEN-002
DATE	08-11-13
BY	AG
FOR	BOISE CASCADE WOOD PRODUCTS, LLC.
SCALE	AS SHOWN
NOTES	1. FOR ONE REVISION FOR LATEST REVISION. 2. DO NOT SCALE DRAWING.

**Boise Cascade**

HONEDALE, ID.  
HONEDALE & DECK PLANT  
FIGURE 2 AIR EMISSIONS SCHEMATIC

EMISSIONS

Homedale, Idaho Beam and Deck Plant: Toxics in Resin Products Purchased 2012 (1)  
 Boise Cascade Company PTC P-2008-0150

Updated 5/14/13

Product <sup>(2)</sup>	Product Use	Total Purchased lbs.	lbs. total by weight						
			Formaldehyde	Phenol	Resorcinol	Formic Acid	Diisocyanate	MDI (methylene diphenyl isocyanate)	1,2 Ethandiol
Cascoset FM-6210 /BG3170/50#	Line 1 - Face Bond Catalyst - PRF	52600	1052	0	0	0	0	0	0
Cascoset FM-6210S /BG3170/50#	Line 1 - Face Bond Catalyst - PRF	0	0	0	0	0	0	0	0
Cascophen(TM) LT-5210J	Line 1 - Face Bond Resin - PRF	406396	0	28448	0	0	0	0	0
Cascophen(TM) LT-5210J /TD3158/2.5M#	Line 1 - Face Bond Resin - PRF	0	0	0	0	0	0	0	0
Cascoset H-80 /BG3170/50#	Line 1 - Finish Repair Catalyst - PRF	0	0	0	0	0	0	0	0
Cascophen(TM) G-1260A /PSS3450/4S#	Line 1 - Finish Repair Resin - Resorcinol	0	0	0	0	0	0	0	0
Cascophen(TM) G-1181A /DSS3171/500#	Line 1 - Finger Joint Resin - Resorcinol	0	0	0	0	0	0	0	0
Cascoset Regular B /BG3170/50#	Line 1 - Finger Joint Catalyst - PRF	0	95	0	0	0	0	0	0
Cascoset(TM) WF-2L /TD5145/2.5#	Line 1 - Finger Joint Resin - Melamine Chloride Acid	27188	0	0	0	0	0	0	0
Wonderbond Hdhr M 320L Y /DP3150/570#	Line 1 - Finger Jointer Catalyst Aluminum	4797	0	0	0	0	0	0	0
Cascoset FM-6310L /TD3158/2.5#	Line 2 - Face Bond Catalyst - PRF	121245	570	0	0	0	0	0	0
Cascophen(TM) RF-325 /TD3158/2.5M#	Line 2 - Face Bond Resin - PRF	292665	263	29267	0	0	0	0	4536
Cascophen(TM) RF-350 /TD3158/2.5M#	Line 2 - Face Bond Resin - PRF	0	0	0	0	0	0	0	0
Cascophen(TM) RF-375 /TD3158/2.5M#	Line 2 - Face Bond Resin - PRF	0	0	0	0	0	0	0	0
Mormentive(TM) 4720 /TD3158/2.5M#	Line 2 - Finger Joint Resin - Melamine	30546	98	0	0	0	0	0	0
Mormentive(TM) 5025A /DP3150/500#	Line 2 - Finger Jointer Catalyst- Formic Resorcinol Acid	11900	0	0	0	2737	0	0	0
Willamette Valley U-100 A Syn Patch	Varies	87589	0	0	0	0	0	0	0
Willamette Valley U-100 B Syn Patch	Varies	8994	0	0	0	0	0	0	0
Total mixed glue		1,043,920	2078	57714	0	2737	0	0	4536
Total catalyst		190,542							
Total resin		756,795							
Total patch or putty		96,583							

Notes: (1) Pounds shown are total purchased multiplied by % Free or Unbound as shown in the table below.  
 (2) Red font = air toxics emissions quantified by resin supplier.



**Comparison Air Toxics Emission Rates Among Resins and Catalysts**  
 Homedale, Idaho Bearn and Deck Plant  
 Boise Cascade Wood Products LLC  
 Updated 6/7/13

Potential Air Toxic and Data Source	lb/lb of Mixed Glue <sup>(6)</sup>	Air Emissions lbs/yr <sup>(6)</sup>	Air Emissions lbs/hr <sup>(6)</sup> , PTC <sup>(7)</sup>	IDAPA 58 Screening Threshold lbs/hr	Notes
Formaldehyde <sup>(1)</sup>	0.00065	659	0.2240	0.00051	data used by CH2M-Hill for PTC 2/7/2008 <sup>(7)</sup>
Formaldehyde <sup>(2)</sup>	0.00014	199	0.0425	0.00051	
Formaldehyde <sup>(3)</sup>	0.00073	1041	0.2224	0.00051	
Formaldehyde <sup>(4)</sup>	0.00028	398	0.0850	0.00051	
Average	0.00045	574	0.1227	0.00051	
Methanol <sup>(1)</sup>	0.00257	3650	0.7799	17.3000	data used by CH2M-Hill for PTC 2/7/2008 <sup>(7)</sup>
Methanol <sup>(2)</sup>	0.01822	25875	5.5288	17.3000	Cascomel MF-2L/M-320LY use constitutes about 4% of annual mixed glue.
Methanol <sup>(3)</sup>	0.00029	412	0.0880	17.3000	
Methanol <sup>(4)</sup>	0.00195	2769	0.5917	17.3000	
Average	0.00576	8176	1.7471	17.3000	
Formic Acid <sup>(3)</sup>	0.00102	1449	0.3095	0.6270	
Phenol <sup>(1)</sup>	0.00000	0	0.0000	1.2700	
Phenol <sup>(3)</sup>	0.00075	1059	0.2264	1.2700	
Average	0.00037	530	0.1132	1.2700	
Resorcinol <sup>(1)</sup>	0.00000	0	0.0000	3.0000	
Resorcinol <sup>(3)</sup>	0.00000	0	0.0000	3.0000	
1,4 Butanediol <sup>(4)</sup>	0.00000	0	0.0000	NA	
Resin PTC <sup>(7)</sup>	724559				
Catalyst PTC <sup>(7)</sup>	289828				
Total Mixed Glue PTC <sup>(7)</sup>	1420142				

**Notes:**

- (1) Hexion 7/15/2002 2.5:1 resin to catalyst; conductive heating plate temp 175 F for 30 min.; mixed glue rate of 45lb/MSF Douglas Fir; Cascophen LT-5210J/Cascocet FM-6210
- (2) Hexion 7/15/2002 10:1 resin to catalyst; conductive heating plate temp of 175 F for 30 min.; Douglas Fir; Cascomel MF2L/Wonderbond Hardener M-320LY
- (3) Hexion 11/26/2008 2.5:1 resin to catalyst; conductive heating plate temp 300F for 30 min.; mixed glue rate of 45lb/MSF Douglas Fir; Cascophen RE-300W/Cascoset FM-6310L
- (4) Momentive 12/13/2012 2:1 resin to catalyst; radio frequency drying, 305F for 12 minutes; mixed glue rate of 55 lbs/MSF Southern Yellow Pine; Momentive 4720/5025A
- (5) All tests conducted using the Borden Closed Caul Plate Test Method. Concentrations not corrected for air toxics in wood or ambient air.
- (6) Assumes facility operates 4,680 hrs/yr--from Note (7) below. Also, same air emission factor is applied to all resin and catalyst used--regardless of differences in resin and catalyst air emission rates.
- (7) CH2M-Hill 2/7/2008. Permit to Construct: Filler King, Homedale, ID.

**Operation, Monitoring and Maintenance Manual (OM<sup>3</sup>)  
Cyclones C-1, C-2, C-3, C-4 and Baghouse BH-1  
Homedale Beam and Deck Plant  
Boise Cascade Wood Products, LLC**

**DRAFT for Review by Idaho Dept. of Environmental Quality  
June 17, 2013**

**Prepared by: Bart Barlow, Environmental Engineering Manager**

**Reviewed by: Greg Howard, Production Manager  
Mike Kharri, Maintenance Supervisor  
Eric Lawrence, General Manager**

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## 1.0 Purpose

Boise Cascade Wood Products, LLC (BCWP) owns and manages the Filler King Glulam Beam and Deck manufacturing facility (Facility) located in Homedale, Idaho. On June 3, 2011, the Idaho Department of Environmental Quality (IDEQ) transferred an Air Quality Permit to Construct (PTC) P-2008.0150 to BCWP. PTC includes fugitive and point source air emissions from the Facility.

Required inspection, monitoring, corrective action and recordkeeping requirements for Cyclones C-1 through C-4 and Baghouse BH-1 is presented in this Baghouse and Cyclone Operation, Monitoring and Maintenance Manual (BCOM<sup>3</sup>). Effective implementation of the requirements and procedures listed here will ensure Facility complies with applicable conditions in the PTC.

## 2.0 Recordkeeping

At the end of each month, all original copies of records demonstrating compliance with this BCOM<sup>3</sup> shall be sent to the Facility Main Office for filing. Records shall be kept at the site for five (5) years.

## 3.0 Emergency Contacts

One of the following individuals shall be contacted whenever questions arise regarding proper operation of the cyclones, baghouse or material handling systems at the Facility:

- General Manager (Eric Lawrence): 208.337.3136 or 541.786.1287
- Maintenance Supervisor (Mike Kharrl): 208.870.7810
- General Supervisor (Tony Guzman): 208.695.8171
- Bart Barlow: office 541-962-2057; cell 541-786-2036; home 541-963-9740

## 4.0 Monitoring and Inspection Requirements

Inspection, monitoring, maintenance, and record keeping requirements presented here apply to:

<b>Cyclones and Location<sup>(1)</sup></b>	<b>Material Handling</b>
C-1 Beam Plant/Truck Bin	L2 Planer Shavings, Sawdust, Sanderdust
C-2 Beam Plant/Truck Bin	L1 Planer Shavings, Sawdust, Sanderdust; L2 Sawdust (trim saw only)
C-3 Deck Plant/Truck Bin	Planer Shavings, Molder Shavings, Sawdust, Sanderdust
C-4 Deck Plant	Sawdust
<b>Baghouse</b>	<b>Material Handling</b>
BH-1	L1 Sander

**Notes:** <sup>(1)</sup> Manufacturing Line 1 (L1) and Line 2 (L2); see Figures 1 and 2 for air handling system schematics.

## 4.1 Baghouse BH-1

**Monthly**, inspect Baghouse BH-1 and the associated material handling system *while operating*, to determine if the pressure drop is acceptable and visually survey the area to determine if fugitive emissions are being adequately controlled (fill out form in **Appendix A**).

**Semi-Annually**, inspect BH-1 to verify unit is being operated properly, including fire detection and suppression system (fill out form in **Appendix B**).

Allowable baghouse pressure drop: 0.1 to 5.0 inches water column

Fugitive emissions controls: Fugitives emissions are visible but do include water vapor. Fugitive emissions associated with BH-1 and the material handling system must be controlled—causes shall be remedied as soon as practicable, accumulations of debris that may become airborne shall be cleaned up timely and no fugitives may be discharged off of Facility property. If *fugitives* are noted, mitigating actions shall be taken within 24 hours.

Opacity Limits: Visible emissions from the exhaust or discharge from BH-1 shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period.

### Compliance demonstration:

- Line 1 sander **shall not be operated** unless BH-1 is on-line and are being operated as efficiently as practicable.
- If BH-1 aborts or malfunctions and the Line 1 sander continues to operate for more than three (3) minutes, as aggregated in any one hour (and wood is being sanded), the form shown in **Appendix D** shall be completed and IDEQ shall be notified immediately—within one hour—and an air upset reported (IDEQ 208.373.0502). Environmental Engineer shall also be contacted immediately (541.962.2057).
- Completion of those inspections outlined in Appendix A and B, and taking appropriate corrective action timely when fugitives are noted, shall be used to demonstrate compliance.

## 4.2 Cyclones

**Semi-Annually**, inspect each cyclone and related material handling system and determine if it is being operated properly, if it requires maintenance and if fugitive emissions area being properly controlled (fill out form in **Appendix C**).

Fugitive emissions controls: Fugitives are emissions which are visible but do include water vapor. Fugitive emissions must be controlled—accumulations of debris that may become airborne shall be cleaned up timely and no fugitives may be discharged off of the plant site. If *fugitives* are noted, mitigating actions shall be taken within 24 hours.

Opacity Limits: Visible emissions from the exhaust or discharge from any cyclone or material handling system (including a truck bin) BH-1 shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period.

**Compliance demonstration:**

- Manufacturing lines ***shall not be operated*** unless the respective cyclone and material handling system (including truck bin as applicable), is on-line and is being operated as efficiently as practicable.
- If a cyclone or material handling system malfunctions in a manner that allows wood fiber to be discharged directly to the atmosphere and that causes opacity, for more than three (3) minutes as aggregated in any one hour, the form shown in **Appendix D** shall be completed and IDEQ shall be notified immediately—within one hour—and an air upset reported (IDEQ 208.373.0502). Environmental Engineer shall also be contacted immediately (541.962.2057).
- Completion of those inspections outlined in Appendix A and B, and taking appropriate corrective action timely, shall be used to demonstrate compliance.

**5.0 Employee Training**

All Supervisors and other staff with responsibility for material handling system monitoring, maintenance, and inspections shall be trained at least one-time using the information in this BCOM<sup>3</sup>. Follow-up training shall be completed whenever changes are made at the Facility that would affect the monitoring and inspection procedures or requirements. All training shall be documented on a Training Activity Reporting Process (TARP) form.

**Appendix A. Monthly Inspection, Baghouse BH-1**

**Monthly Inspections, Beam Plant Baghouse BH-1 System**

Date of Inspection:		Inspected By:	
Time of Inspection:	Baghouse Operating:	Yes	No
Record pressure drop as shown on gauge. Pressure drop shall be 0.1 to 5 inches—if outside of range go to Actions below. <sup>(1)</sup>		Record Pressure Drop:	
Inspect for Visible Emissions <sup>(2)</sup> <ul style="list-style-type: none"> <li>Are there visible dust emissions from the baghouse structure, baghouse discharge points, blowpipes or truck bin? Look for leaks from cracks, seals, holes, flatbacks, blowpipes, bin teeth etc?</li> </ul>		Yes	No
Test Gauge that Measures Pressure Drop <sup>(4)</sup> <ul style="list-style-type: none"> <li>Make a kink or bend in "clear hose," exit pressure drop; gauge should read zero inches pressure drop.</li> <li>Make a kink or bend in "black hose," inlet pressure drop; gauge should read max pressure.</li> </ul>		Yes	No
<b>Corrective Actions</b> —Add notes below			

**Actions Required/Notes:** (1) If pressure drop is outside of allowable range, complete troubleshooting within 24 hours (see note (4) below), or shut down system and check bags for plugging, loose bags, etc. Pressure drop must be restored to within the allowable range within 5 working days of an out of range reading being discovered. (2) If visible emissions are noted, source of emissions shall be determined, recorded here and corrective actions taken with 48 hrs. (3) If "No", bag cyclone times are not correct, system shall be repaired within 3 working days. (4) If gauge does not respond properly, check for air leaks, air line hose blockage, loose fittings, etc., and, or replace gauge. Gauge must be reading properly within 3 working days of a malfunction being noted.

File all inspections at Filler King Main Office at the end of each month.

If questions call Bart Barlow, Environmental Engineer at 541/962-2057 or 541/786-2036

**Appendix B. Twice Per Year Inspection BH-1**

**Semi-Annual Inspection Baghouse BH-1**

Date of Inspection:		Inspected By:			
Time of Inspection:		Facility Operating:	<table border="1"> <tr> <td>Yes</td> <td>No</td> </tr> </table>	Yes	No
Yes	No				
<b>Twice Per Year Inspection <sup>(1)</sup></b>					
Inspect and Verify Dampers are Functioning and Sealing Properly		Yes	No		
<ul style="list-style-type: none"> <li>Seals are tight and actuators are in good working order?</li> </ul>					
Inspect and Verify Cloth Filter Bags are OK		Yes	No		
<ul style="list-style-type: none"> <li>Bags properly attached?</li> <li>Bags not plugged and no accumulation of wood residuals inside baghouse?</li> </ul>					
Test Spark Detection and Fire Suppression System		Yes	No		
<ul style="list-style-type: none"> <li>Spark detection and deluge system functioning properly ?</li> </ul>					
<b>Corrective Actions</b> —Add notes below					

Notes: (1) System shall not be operated unless these items are operating properly. Make note under Corrective Actions.

File all inspections at Filler King Main Office at the end of each month.

If questions call Bart Barlow, Region Environmental Engineer at 541/962-2057 or 541/786-2036

**Appendix C. Semi-Annual Cyclone and Truck Bin Inspection**

### Semi-Annual Cyclone, Truck Bin and Overall Material Handling System Inspection

1. Note which cyclones and bins were inspected.
2. Note deficiencies and corrective actions taken at the bottom of this form.
3. All deficiencies shall be corrected within 7 days of identifying.

For each cyclone, truck bin and overall material handling system, inspect components as follows (some items must be checked while operating, some while unit is shut down and locked out):

#### Cyclones

1. Intact and properly attached Vortex breaker plate (if applicable)?
2. No dust leaks from cyclone, piping or ducting, blowpipes, connections, etc.?
3. Tight and properly functioning Air Lock?
4. No buildup of wood fiber on ground, roof or general area?

#### Truck Bins

1. No dust leaks in bin cap/structure or blowpipes?
2. Air vents covered with air permeable fiber to minimize fugitive dust?
3. Fan motors balanced properly to control back pressure/dust?
4. Fugitive dust properly controlled (structure and ground free of excessive buildup)?
5. Bin closure teeth properly adjusted to minimize loss of wood fiber (if applicable)?

Cyclones and Location	Material Handling	System OK? Yes or No
C-1 Beam Plant/Truck Bin	L2 Planer Shavings, Sawdust, Sanderdust	
C-2 Beam Plant/Truck Bin	L1 Planer Shavings, Sawdust, Sanderdust; L2 Sawdust (trim saw only)	
C-3 Deck Plant/Truck Bin	Planer Shavings, Molder Shavings, Sawdust, Sanderdust	
C-4 Deck Plant	Sawdust	

List all corrective actions taken: \_\_\_\_\_ No corrective actions required

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name (Print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date Completed: \_\_\_\_\_ Time Completed (am/pm): \_\_\_\_\_

**Deliver signed copy to General Manager by end of month.**

## Appendix D: Air Upset Guidance and Reporting to IDEQ

## **Air Upset Guidance, Actions and Reporting to the Idaho Department of Environmental Quality (IDEQ)**

Guidance is presented here for managing air upsets or excess emissions from cyclones, the baghouse, blow pipes and truck bins.

### **Definitions:**

- **opacity:** defined as the extent to which an emission or plume reduces the transmission of light and obscures the view of an object in the background as measured in accordance with EPA Method 9. ***Unless you are a State of Idaho Certified Opacity Reader, any opacity readings you make will be judged as non-applicable.***
- **air upset:** defined as the malfunction, breakdown or bypassing of a cyclone or baghouse—the unit is not functioning at the required efficiency, wood fiber was not being captured and conveyed as required (blow pipe of the malfunction, etc); or the manufacturing process was on-line and air emissions were being generated, but the cyclone or baghouse was off-line or malfunctioning.
- **excess emissions:** defined as emissions, in this case opacity, which are greater than 20% for a period aggregating more than three minutes in any one hour, or you know or suspect that the process or production unit continued to operate during the time period that the pollution control device was off-line or malfunctioning.

### **Standard Operating Procedures for Responding to Air Upsets:**

Typical or probable air upset type events are as follows (not all inclusive):

***NOTE: In all cases the associated manufacturing process continued and visible emissions occurred or were likely to have occurred:***

- Baghouse abort gate failed to close tightly, or blow pipe joint separated, or baghouse blew its top off and sandust was spewed out.
- Cyclone vortex breaker plate (inside the cyclone) broke loose/failed, wood fiber was spewed out the cyclone.
- Baghouse abort gate opened, for any reason (indexing system failure, over-pressurizing, fan motor failure, spark detection, etc.), and sander dust was discharged to the atmosphere.
- Cyclone sheet metal seam failure occurred and wood fiber was blowing out.
- Bags came loose from baghouse causing wood fiber to be discharged from exhaust.

**Reporting:** If an air upset occurred that involved a baghouse or cyclone and caused, or was likely to have caused, excess emissions, you shall complete the following:

**Step 1.** Take immediate action (*within one hour*) to eliminate the cause of the upset, malfunction or breakdown, or shut down the production unit(s) located upstream of the cyclone or baghouse which is undergoing the upset condition.

**Step 2.** Notify the General Manager or Supervisor immediately.

**Step 3.** Fill out an air upset log (*see Attachment 1*).

**Step 4.** PDF a copy of the air upset log to the Region Environmental Engineer prior to calling the IDEQ at [bartbarlow@bc.com](mailto:bartbarlow@bc.com).

**Step 5.** Contact the Idaho Dept. of Environmental Quality within twenty-four (**24**) hours of becoming aware of the upset condition at 208.373.0437.

**Step 6.** File the original air upset log in the Main Office, Environmental Filing Cabinet.

***Need Help?** Contact the Region Environmental Engineer if you have questions about the upset condition or the appropriate actions to take, or with filling out the required air upset log (Bart Barlow @ 541.962.2057 work, 541.786.2036 cell, 541.963.9740 home).*

**Step 7.** Environmental Engineer shall submit all Excess Emissions logs to IDEQ within 15 days from the beginning of an excess emissions event (IDAPA 58.01.01.135).

**Attachment 1. Air Upset Log, Homedale Beam and Deck Facility**

**Attachment 2. Guidance, Completing the Air Upset Log**

**Attachment 1. Air Upset Log, Homedale Beam and Decking (Filler King)**

1. Person Completing Log: _____		Month: _____	Date: _____	200__
2. Describe upset problem:				
3. Notified IDAHO DEQ (call in at 208.373.0437): Yes or No			Time of notification:	
4. Planned upset: Yes or No		5. Process and pollution control equipment involved:		
6. Likely Cause of Upset: _____ startup/shutdown _____ scheduled maintenance _____ process problem _____ emergency action, fire, etc _____ other, known problem _____ other, unknown problem Explain Likely Cause:				
7. Total duration (minutes) that pollution control device was off-line and material flow continued: Time upset started: _____ Time upset stopped: _____				
8. Describe the magnitude of emissions over allowable normal (opacity):				
9. Describe efforts made to minimize amount and duration of emissions:				
10. Describe corrective action(s) taken:				
11. Describe preventative measure(s) taken:				
12. Was overtime labor or contractor assistance used, or special equipment brought in to reduce the amount and duration of emissions? EXPLAIN				
13. Have there been previous upsets of this kind? Yes or No If Yes, describe:				
14. Name of operator(s) on duty:				

\* See Guidance Document Attached. Questions? Call Bart Barlow work 541.962.2057, cell 541.786.2036, or home 541.963.9740. Attach extra sheets if you need more room to write or have records to include.

## Attachment 2. Guidance, Completing the Air Upset Log

### 1. Person completing log:

The person who is most familiar with the specific upset, including the operation of the production equipment and/or pollution control device, and who understands the upset reporting process shall fill out the upset form, and shall file all required reports.

### 2. Describe upset problem:

Describe as clearly as possible the upset situation—what happened?

### 3. Has IDEQ been notified?

Check Yes or No as to whether or not you called IDEQ.

### 4. Planned upset:

Check Yes if the upset was planned and IDEQ was notified in advance.

For example, check “Yes” if you manually shut down the equipment for maintenance, or to test the fire system, etc,. If the upset was a surprise, it was not planned—check No.

### 5. Process and pollution control equipment involved:

**You must** list the *process unit(s)* and *pollution control device(s)* that were affected by the upset. Process units include the planers, sanders, finger jointers, etc. Pollution control devices include cyclones or the baghouse as follows:

<b>Cyclones and Location<sup>(1)</sup></b>	<b>Material Handling</b>
C-1 Beam Plant/Truck Bin	L2 Planer Shavings, Sawdust, Sanderdust
C-2 Beam Plant/Truck Bin	L1 Planer Shavings, Sawdust, Sanderdust; L2 Sawdust (trim saw only)
C-3 Deck Plant/Truck Bin	Planer Shavings, Molder Shavings, Sawdust, Sanderdust
C-4 Deck Plant	Sawdust
<b>Baghouse</b>	<b>Material Handling</b>
BH-1	L1 Sander

**Notes:** <sup>(1)</sup> Manufacturing Line 1 (L1) and Line 2 (L2); see Figures 1 and 2 for air handling system schematics

## 6. Cause of upset:

Be sure you check the situation that best describes the cause of the upset.

Was the upset caused by an emergency condition, such as a pyroguard fire trip (check the emergency box); a fan motor malfunction (check the other known problem box); shut down for maintenance, etc.? ***You must isolate the cause of the upset, instead of what happened as a result of it occurring.***

## 7. Total duration (minutes) that the pollution control device was off-line and material flow continued:

Upset means any failure or malfunction of any pollution control equipment or operating equipment, ***which may cause excess emissions***. The upset duration ***only includes*** the time period that excess emissions were likely to have occurred, or the time period that we have no credible evidence to show that excess emissions did not occur.

**Time (24 hr basis) upset started:** Time the upset was recorded, reported to you, or you became aware of it.

**Time (24 hr basis) upset stopped:** Time the upset was stopped (material flow through the system was stopped, or the pollution control system was brought back on-line, etc).

## 8. Describe the magnitude of emissions over allowable normal conditions (opacity):

Unless you are a certified opacity reader and were able to actually complete a "certified" EPA Method 9 reading, do attempt not estimate the opacity. Write in "unknown" or "unquantifiable." ***Note on the form, however, the conditions associated with the upset that could have affected the opacity.***

## 9. Describe efforts made to minimize amount and duration of emissions:

Explain what was done to minimize the potential for, or actual excess emissions.

## 10. Describe corrective action(s) taken:

Explain what actions were taken to correct the upset situation.

In many cases, you have already stated this under items 8. and 9. and may refer to those sections here.

**11. Describe preventative measures taken:**

Unless you have specific knowledge regarding the type and frequency of maintenance performed on the equipment, write in "see maintenance logs". Maintenance logs are kept for all equipment at the facility.

**12. Was overtime labor or contractor assistance used to reduce the amount and duration of emissions?**

Additional labor used to correct the problem, including use of outside services, must be documented. Be sure requisitions/PO's for outside services related to upsets or maintenance activities clearly state the equipment involved.

**EXPLAIN:** If overtime labor or outside services were brought in, summarize here or attach additional sheets.

**13. Have there been previous upsets of this kind? Yes or No—pick one only**

Do a little research to determine if there have been upsets of this kind previously.

**14. Name of operator(s) on duty at time of upset:**

It is important to list the names of the operators that were on duty. It may be necessary at a later date to investigate the upset, so it is important to have this information available.