STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Curt Fransen, Director

December 17, 2012

Travis DuVall, Plant Manager
Basalite Concrete Products
1300 Franklin Road
Meridian, Idaho 83642

RE: Facility ID No. 001-00292, Basalite Concrete Products, Meridian
Final Permit Letter

Dear Mr. DuVall:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2012.0041 Project 61081 to Basalite Concrete Products for the initial PTC for a molded concrete block manufacturing facility located at Meridian. This PTC is issued in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho) and is based on the certified information provided in your PTC application received on July 9, 2012, and supplemental information provided on August 9, 2012, September 26, 2012, and November 16, 2012.

This permit is effective immediately. This permit does not release Basalite Concrete Products from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Tom Krinke, Air Quality Compliance Officer, at (208) 373-0550 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends that the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Harbi Elshafei at (208) 373-0501 or harbi.elshafei@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Mike Simon
Stationary Source Program Manager
Air Quality Division

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Permit No. P-2012.0041 PROJ 61081
Enclosures

Air Quality

PERMIT TO CONSTRUCT

Permittee	**Basalite Concrete Products**
Permit Number	**P-2012.0041**
Project ID	**61081**
Facility ID	**001-00292**
Facility Location	**1300 East Franklin Road** **Meridian, Idaho, 83642**

Permit Authority

This permit (a) is issued according to the *Rules for the Control of Air Pollution in Idaho (Rules)*, IDAPA 58.01.01.200-228; (b) 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; (c) has been granted on the basis of design information presented with its application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) 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; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (g) 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. Changes in design, equipment or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200-228.

Date Issued **December 17, 2012**

Harbi Elshafei

Harbi Elshafei , Permit Writer

Mike Simon

Mike Simon, Stationary Source Manager

1. Permit Scope

Purpose

1.1 This is the initial permit to construct (PTC) for a molded concrete block manufacturing facility.

Regulated Sources

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

Table 1.1 Regulated sources.

Permit Section	Source	Control Equipment
2	Raw Material Storage Silos Stockpiles for ASTM C33 Sand and 3/8" Chip Gravel; 3/8" Black Cinder, 3/8" Gold Pumice; 7/16" Red Cinder; 3/8" #8 White Pumice. There are four large aggregate storage silos (capacity 960 ton, each) and one middle septum small aggregate storage silo (capacity 320 ton); two storage silos for Type II-V Cement and Type F Fly Ash; 3/8" Minus Reclaim (it is a crushed concrete by-product) Raw Material Silos: Line A Cement Silo: Capacity: 100 tons Line B Cement Silo: Capacity: 115 tons Line A/B Fly Ash Silo: Capacity: 50 tons	None
2	Batching Operations: Aggregate (sand, gravel, red and black cinder) are unloaded from the dump truck to a grated cover (grizzly with a capacity of 38 T/hr), which is located over an underground storage bin and transferred by belt conveyor to six bins to the block plant building. The materials are mixed, molded, and then baked into concrete according to specifications. Block Machine Forming, Curing, and Cubing: There are two block machines exiting at Basalite, which are manufactured by Besser Company, V3-12 Vibrapac: Line A Block Machine – it receives the concrete mix via gravity Line B Block Machine – it receives the concrete mix via conveyor The concrete mix (mud) is fed into a mold, and then it stripped out of the mold and transferred via chain conveyors to curing ovens.	None
2	Concrete Curing Ovens: There are a total eight curing ovens that utilize two individual steam vaporizers: Line No. 1 Vaporizer (used for Line A Block Machine): Manufacturer: Kemco Systems Model: 50/4B Construction Date: 1998 Rated Capacity: 5 Million British Thermal Units Per Hour (MMBtu/hr) Line No. 2 Vaporizer (used for Line B Block Machine): Manufacturer: Kemco Systems Model: 50/4B Construction Date: 2000 Rated Capacity: 5 MMBtu/hr	None
2	Rock Crusher: Manufacturer: Cederapids Model (Roll): 60X16DD, Serial No.: 34991; Model (Jaw): LFMC8006, Serial No.: 53 Maximum Capacity (Jaw): 15 T/hr Maximum Capacity (Roll): 30 T/hr The crusher is powered by electricity	Baghouse Manufacturer: Emtrol Model No.: 36BV360 Air to Cloth Ratio: 8:1 PM_{10} Control Efficiency: 99.99%

2. Silos (Cement, Fly Ash/Supplement, & Aggregate), Batching, Natural Gas Fired Steam Vaporizers, and Rock Crusher

2.1 Process Description

Basalite Concrete Products (Basalite) brings in raw materials in various amounts. These materials are mixed in recipe specific batches to form concrete based products including but not limited to concrete masonry units, segmented retaining wall units, interlocking paver units, garden line product units, and water revetment erosion control units. Mixes are formed in molds, which are then heated with steam to cure as final products. Final product is stored at the facility property until units are shipped state-wide as well as to bordering states.

Emission points are primarily the raw material intake points, a small percentage of the material transfer or handling points are not fully enclosed, two cement storage silos, and one flyash/supplement storage silo, five aggregate storage silos, crushing and screening operations, and two 5 MMBtu/hr natural gas fired vaporizers that provide heat for curing the molded concrete based products inside eight ovens.

The crushing and screening operation handles reclaimed materials (molded concrete product not up to specification) for reuse in the product development process. Only white pumice reclaim is crushed in the rock crusher. The crushing and screening occur in an enclosed building, with the emissions from the crusher, the screening operation, and some material transfers controlled by a baghouse inside that building.

2.2 Control Device Descriptions

Table 2.1 Silos (Cement, Fly Ash/Supplement, & Aggregate), Batching, Natural Gas Fired Steam Vaporizers, and Rock Crusher

Emissions Units / Processes	Control Devices	Emission Points
Raw Material Storage Silos (Line A Cement Silo, Line B Cement Silo, and Flyash Silo)	None	Line A Cement Silo Stack Line B Cement Silo Stack: Line A & B Cement Supplement (Flyash) Silo Stack
Batching Operations	None	No stacks
Concrete Curing Ovens	None	There are 8 ovens and each is with two stacks
Rock Crusher	Baghouse	The baghouse is enclosed in a three sided building. All emissions associated with the baghouse are released into the atmosphere via the fourth open building side.

Emission Limits

2.3 Visible Emissions Limit

Emissions from the crusher stack, or any other stack, vent, or functionally equivalent opening associated with the facility, 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.

2.4 Fuel Burning Equipment

Emissions limits of particulate matter (PM) from each of the vaporizer exhaust stacks shall not exceed 0.015 gr/dscf corrected to 3% oxygen by volume when burning natural gas in accordance with IDAPA 58.01.01.675.

2.5 Odor

No person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids into the atmosphere in such quantities as to cause air pollution in accordance with IDAPA 58.01.01.776.01.

Operating Requirements

2.6 Fugitive Emissions

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:

- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
- Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
- Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
- Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
- Paving of roadways and their maintenance in a clean condition, where practical.
- Prompt removal of earth or other stored material from streets, where practical.

Emissions Standards for Fugitive Emissions for Nonmetalic Mineral Processing Plants Not Subject to 40 CFR 60, Subpart OOO

In accordance with IDAPA 58.01.01.793.02, no owner or operator shall cause to be discharged into the atmosphere emissions which exhibit greater than twenty percent (20%) opacity from any crusher, grinding mill, screening operation, bucket elevator, belt conveyor, conveying system, transfer point, vent, capture system, storage bin, stockpile, truck dumping operation, vehicle traffic on an affected paved public roadway, vehicle traffic on or wind erosion of an unpaved haul road, or other source of fugitive emissions. Opacity shall be determined using the test methods and procedures in Section 625. The plant is not required to have a certified opacity reader.

2.7 Permitted Fuel

The steam vaporizers shall burn natural gas fuel exclusively.

2.8 Fuel Burning Throughput Limits

The maximum amount of natural gas fuel burned in the steam vaporizers shall not exceed 18 million standard cubic feet per any consecutive 12-calendar month (MMscf/yr).

2.9 Material Throughput Limits

The material throughput used at the facility shall not exceed the following limits in any consecutive 12-calendar months:

- Gravel: 21,430 tons/yr (T/yr),
- Red Cinder: 350 T/yr,
- Black Cinder: 350 T/yr,
- Gold Pumice: 153 T/yr,
- White Pumice: 14,850 T/yr,
- Sand: 44,845 T/yr, and
- Reclaim Aggregate: 8,690 T/yr

2.10 Cement and Flyash Silo Throughput Limits

The Cement and flyash throughput used at the facility shall not exceed the following limits in any consecutive 12-calendar months:

- Line A Cement Silo: 31,200 T/yr,
- Line B Cement Silo: 31,200 T/yr,
- Line A & B Cement Supplement (Flyash) Silo: 31,200 T/yr,

2.11 Baghouse Operating Requirements

- The permittee shall install and operate a baghouse to control PM_{10} and PM emissions from the crusher stack.
- Within 180 days of permit issuance, the permittee shall have developed a baghouse procedures document for the inspection and operation of the baghouse which controls the PM_{10} and PM emissions from the crusher. The baghouse procedures document 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.

The baghouse procedures document shall describe the procedures that will be followed to comply with the General Compliance of the General Provision and shall contain requirements for quarterly see-no-see visible emissions inspections of the baghouse stack. The inspection shall occur during daylight hours and under normal operating conditions.

The baghouse procedures document shall also include a schedule and procedures for corrective action that will be taken if visible emissions are present from the baghouse at any time. At a minimum the document shall include:

- Procedures to determine if bags are ruptured; and
- Procedures to determine if bags are not appropriately secured in place.

The permittee shall maintain records of the results of each baghouse inspections in accordance with the Monitoring and Recordkeeping of the General Provision. The records shall include a description of whether visible emissions were present and if visible emissions were present a description of the corrective action that was taken.

The baghouse procedures document shall be submitted to DEQ within 180 days of permit issuance and shall contain a certification by a responsible official. Any changes to the baghouse procedures document shall be submitted within 15 days of the change.

The baghouse procedures document shall also remain on site at all times and shall be made available to DEQ representatives upon request.

The operating and monitoring requirements specified in the baghouse document are incorporated by reference to this permit and are enforceable permit conditions.

Monitoring and Recordkeeping Requirements

2.12 Fugitive Dust Monitoring

- The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.
- The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.
- The permittee shall conduct a quarterly 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 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's 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.

2.13 Odor Complaint Monitoring

The permittee shall maintain records of all odor complaints received to demonstrate compliance with the odors permit condition. The permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

2.14 Cement and Flyash Monitoring

The permittee shall monitor and record monthly, tons, the usage of all material (i.e., gravel, red cinder, black cinder, gold pumice, white pumice, sand, and reclaim aggregate) used in the batching process. The monthly usage records shall be aggregated over a consecutive 12-month period to demonstrate compliance with the annual limits.

2.15 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. Sources that are monitored using a continuous opacity monitoring system (COMS) are not required to comply with this permit condition. 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 in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136.

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.

2.16 Fuel Burning Throughput Monitoring

The permittee shall monitor and record the fuel consumption monthly (when the vaporizers are operated that month), and annually to demonstrate compliance with the fuel burning throughput limits. Annual fuel consumption shall be determined by summing each monthly fuel consumption over the previous consecutive 12-month period. A compilation of the most recent five years of fuel throughput data shall be kept on site, and shall be made available to DEQ representatives upon request.

3. General Provisions

General Compliance

3.1 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.]

3.2 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]

3.3 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

3.4 Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

- 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;
- Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- 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

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

[IDAPA 58.01.01.211.02, 5/1/94]

3.6 The permittee shall furnish DEQ written notifications as follows:

- A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;
- A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

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

[IDAPA 58.01.01.211.03, 5/1/94]

Performance Testing

3.7 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.

3.8 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.

3.9 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

3.10 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]

Excess Emissions

3.11 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

3.12 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

3.13 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

3.14 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

3.15 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

3.16 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 58.01.01.211, 5/1/94]