



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI  
GOVERNOR

DAVID P. LITTELL  
COMMISSIONER

**Gagne and Son Concrete Blocks, Inc.** )  
**Kennebec County** )  
**Belgrade, Maine** )  
**A-757-71-G-R/A** )

**Departmental**  
**Findings of Fact and Order**  
**Air Emission License**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Gagne and Son Concrete Blocks, Inc. (GSC) have applied to renew their Air Emission License, permitting the operation of their concrete and gravel facility.

GSC has requested a modification to their License in order to add the following , previously un-Licensed equipment:

1. Block Plant Boiler
2. Secondary Cone Crusher
3. 4 Cement Silos
4. 2 Parts Washers

GSC has also requested that the #2 fuel oil annual limit be raised from 100,000 gallons to 150,000 gallons on a 12 month rolling total.

**B. Emission Equipment**

Gagne and Son is authorized to operate the following air emission units:

**Fuel Burning Equipment**

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (i.e. gal/hr)</u>	<u>Fuel Type</u>	<u>Date of Construction</u>
Block Plant Boiler	5.3	38.1	#2 fuel oil	2005
Precast Boiler	6.3	45.0	#2 Fuel oil	1998
Back-up Precast Boiler	6.3	45.0	#2 Fuel oil	1973
Diesel Generator	3.6	26.6	Diesel Fuel, @ 15 ppm S	1992

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PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769-2094  
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### Process Equipment

<u>Equipment</u>	<u>Production Rate</u>	<u>Pollution Control Equipment</u>
Primary Jaw Crusher	24.5 tons/hr	None
Secondary Cone Crusher	24.5 tons/hr	None
Block Plant Silo #1	55 cu.yds.	Baghouse
Block Plant Silo #2	55 cu.yds.	Baghouse
Precast Silo #1	27 cu.yds.	Baghouse
Precast Silo #2	24 cu.yds.	Baghouse
Maint. Parts Washer	5 gallons	-
Garage Parts Washer	30 gallons	-

#### C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as defined in the Department’s regulations. This application is determined to be a renewal with a minor modification and has been processed as such.

## II. BEST PRACTICAL TREATMENT (BPT)

### A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers

The Block Plant Boiler, Precast Boiler, and Back-up Precast Boiler are rated at 5.3, 6.3, and 6.3 MMBtu/hr respectively. Therefore the boilers are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis (Precast Boiler and Back-up Precast Boiler) and BACT analysis (Block Plant Boiler) is the following:

1. The total fuel use for the facility shall not exceed 150,000 gal/year of #2 fuel oil that meets the criteria in ASTM D396, based on a 12 month rolling total.
2. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content, however the use of #2 fuel oil that meets the criteria in ASTM D396 is more stringent and shall be considered BPT and BACT.
3. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. However a PM limit of 0.08 lb/MMBtu is more stringent and shall be considered BPT and BACT. The PM<sub>10</sub> limits are derived from the PM limits.
4. NO<sub>x</sub>, CO and VOC emission limits are based upon AP-42 data dated 9/98.
5. Visible emissions from the boilers shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1), six (6) minute block average in a continuous 3-hour period.

C. Emergency Generator:

The Emergency Generator is used to provide back up power to the office buildings.

Back-up generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Back-up generators are not to be used for prime power when reliable offsite power is available.

A summary of the BPT analysis is below:

1. The emergency generator shall fire only diesel fuel with a maximum sulfur content of 15 ppm.
2. The emergency generator shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.

3. 06-096 CMR 106 regulates fuel sulfur content, however in this case a BPT analysis for SO<sub>2</sub> determined a more stringent limit of 15 ppm was appropriate and shall be used.
4. 06-096 CMR 103 regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits.
5. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. Visible emissions from the emergency generator shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2), six (6) minute block averages in a continuous 3-hour period.

**D. Primary Crushers**

The rock crushers were each manufactured in 1992 with a rated capacities of 24.5 tons/hr. The rock crushers are therefore not subject to New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

Gagne and Son has requested to eliminate the requirement for water sprays on their rock crushers due to product quality issues. The Department performed a Method 9 visible emission observation on the rock crushers while in operation. The data from the Method 9 observation indicates the material is usually moist enough to control particulate matter emissions below the required 10% opacity on a 6 minute block average. As a result, the use of water sprays on the rock crushers is not required. [A-757-71-C-M]

**E. Concrete Silos**

To meet the requirements of BPT for control of particulate matter (PM) emissions from the concrete silos, particulate emissions shall be vented through a baghouse(s) maintained for 99% removal efficiency. Visible emissions from the concrete silo baghouse(s) is limited to no greater than 10% opacity on a six (6) minute block average basis except for no more than one (1), six (6) minute block average in a 1-hour period. GSC shall take corrective action if visible emissions from the baghouse(s) exceed 5% opacity.

All components of the concrete silos shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a six (6) minute block average basis except for no more than one (1), six (6) minute block average in a 1-hour period.

F. Parts Washers

The Maintenance Parts Washer has a 5 gallon capacity. The Garage Parts Washer has a 30 gallon capacity. Both units are serviced by Saftey Kleen. Records shall be kept of the solvent added and removed. The Parts Washers are subject to the requirements in *Solvent Cleaners*, 06-096 CMR 130 (last amended June 28, 2004).

G. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

H. General Process Emissions

Visible emissions from any other general process (including conveyor belts, transfer points, bucket elevators, bagging operations, etc.) shall not exceed an opacity of 7% on a six (6) minute block average basis.

I. Annual Fuel Caps and Emission Restrictions

1. The Diesel Generator shall be limited to 20,000 gal of Diesel Fuel (12 month rolling total), with a sulfur content not to exceed 15 ppm.
2. The Boilers shall be limited to 150,000 gal of #2 fuel oil on a 12 month rolling total.
3. Gagne and Son shall be restricted to the following annual emissions, based on a 12 month rolling total:

**Total Allowable Annual Emissions for the Facility**  
(used to calculate the annual license fee)

	Tons/year					
	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Emergency Generator	0.16	0.16	0.01	6.04	1.30	0.48
Boilers	0.84	0.84	5.29	1.50	0.38	0.04
<b>Total</b>	<b>1.00</b>	<b>1.00</b>	<b>5.30</b>	<b>7.54</b>	<b>1.68</b>	<b>0.52</b>

**III. AMBIENT AIR QUALITY ANALYSIS**

According to the 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, Gagne and Son is below the emissions level required for modeling and monitoring.

**ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-757-71-G-R/A, subject to the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

**STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either

Gagne and Son Concrete Blocks )  
Kennebec County )  
Belgrade, Maine )  
A-757-71-G-R/A 7

**Departmental  
Findings of Fact and Order  
Air Emission License**

the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters,

Gagne and Son Concrete Blocks )  
Kennebec County )  
Belgrade, Maine )  
A-757-71-G-R/A 8

**Departmental  
Findings of Fact and Order  
Air Emission License**

staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or

2. pursuant to any other requirement of this license to perform stack testing.
- B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
- C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee

shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

**SPECIFIC CONDITIONS**

(16) **Boilers**

- A. Total fuel use for the boilers shall not exceed 150,000 gal/yr of #2 fuel oil that meets the criteria in ASTM D396 on a 12 month rolling total. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following for each boiler:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler	PM	0.08	06-096 CMR 103(2)(B)(1)(a), BPT, BACT

- C. Emissions shall not exceed the following [06-096 CMR 115, BPT, BACT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Block Plant Boiler	0.42	0.42	2.67	0.76	0.19	0.02
Precast Boiler	0.50	0.50	3.17	0.90	0.23	0.03
Back-up Precast Boiler	0.50	0.50	3.17	0.90	0.23	0.03

- D. Visible emissions from each boiler shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2), six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) **Emergency Generator**

- A. GSC shall limit the Emergency Generator to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on the Emergency Generator. [06-096 CMR 115, BPT]
- B. The Emergency Generator shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The Emergency Generator shall not to be used for prime power when reliable offsite power is available. A log shall be maintained documenting the date, time, and reason for operation. [06-096 CMR 115, BPT]
- C. The emergency generator shall fire diesel fuel with a sulfur content not to exceed 15 ppm. Compliance shall be based on fuel records from the supplier showing the quantity of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BPT]
- D. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Emergency Generator	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

- E. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator	0.44	0.44	0.01	16.05	3.46	1.27

- F. Visible emissions from the Emergency Generator shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2), six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(18) Rock Crusher [06-096 CMR 115, BPT]

- A. GSC shall operate and maintain their rock crushers following best management practices to control particulate emissions. Visible emissions from the crushers shall be limited to no greater than 10% opacity based on a 6 minute block average basis.

- B. GSC shall maintain a log detailing any maintenance performed on the rock crushers. The maintenance log shall be located at the facility whenever the facility is in operation.
- C. GSC shall maintain a log detailing and quantifying the hours of operation on a daily basis for the rock crushers. The operation log shall be located at the facility whenever the facility is in operation.

(19) Concrete Silos

- A. Particulate emissions from the cement silos shall be vented through a baghouse(s) and all components of the batch plant shall be maintained so as to prevent PM leaks. [06-096 CMR 115, BPT]
- B. To document maintenance of the cement silo baghouse(s), the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the concrete facility location. [06-096 CMR 115, BPT]
- C. Opacity from the cement silo baghouse(s) is limited to no greater than 10% on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. GSC shall take corrective action if visible emissions from the baghouse(s) exceed 5% opacity. [06-096 CMR 101]
- D. PM emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(20) Parts Washers

Parts washers at GSC are subject to *Solvent Cleaners*, 06-096 CMR 130 (last amended June 28, 2004).

- A. GSC shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]
- B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
  - 1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
  - 2. Wipe cleaning; and,
  - 3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under Chapter 130.
  - 1. GSC shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:

- (i) Waste solvent shall be collected and stored in closed containers.
  - (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
  - (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
  - (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
  - (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
  - (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
  - (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
  - (viii) Work area fans shall not blow across the opening of the degreaser unit.
  - (ix) The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(21) Stockpiles and Roadways

Visible emissions from a fugitive emission source shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(22) General Process Sources

Visible emissions from any other general process sources shall (including conveyor belts, transfer points, bucket elevators, bagging operations, etc.) not exceed an opacity of 7% on a six (6) minute block average basis. [06-096 CMR 115, BPT]

- (23) GSC shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard [38 M.R.S.A. §605-C].

Gagne and Son Concrete Blocks )  
Kennebec County )  
Belgrade, Maine )  
A-757-71-G-R/A 13

Departmental  
Findings of Fact and Order  
Air Emission License

(24) GSC shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 CMR 115, BPT]

DONE AND DATED IN AUGUSTA, MAINE THIS 30th DAY OF July, 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for  
DAVID P. LITTELL, COMMISSIONER

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 9/10/2008

Date of application acceptance: 10/1/2008

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Jonathan Voisine, Bureau of Air Quality.

