



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

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COMMISSIONER

**Genest Concrete Works, Inc.  
York County  
Sanford, Maine  
A-185-71-O-R (SM)**

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

**FINDINGS OF FACT**

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

1. Genest Concrete Works, Inc. (Genest) located in Sanford, Maine has applied to renew their Air Emission License, permitting the operation of their concrete batch plant and their crushed stone and gravel facility.
2. The equipment addressed in this license is located at 36 Wilson Street, Sanford, ME.

**B. Emission Equipment**

**Fuel Burning Equipment**

<u>Equipment</u>	<u>Maximum Capacity</u> MMBtu/hr	<u>Fuel Type,</u> <u>Sulfur content</u>	<u>Maxi.</u> <u>Firing</u> <u>Rate</u> gal/hr	<u>Manu-</u> <u>facture</u> <u>Date</u>
Maintenance Boiler	1.33	distillate fuel, 0.5% S propane, neg. S	9.5 14.7	1970
Block Plant Boiler	1.00	distillate fuel, 0.5% S propane, neg. S	7.1 11.5	1992
Steam Generator #1	1.26	distillate fuel, 0.5% S	9.0	2004
Steam Generator #2	1.26	distillate fuel, 0.5% S	9.0	2004

### Concrete Plants

<u>Equipment</u>	<u>Production Rate</u> cubic yards/hour	<u>Control Devices</u>
Block Plant	67	Baghouse
Masa Plant	30	Baghouse
Paver Plant	6	Baghouse

### Rock Crushers

<u>Unit</u>	<u>Powered</u>	<u>Process Rate</u> (tons/hour)	<u>Date of</u> <u>Manufacture</u>	<u>Control Device</u>
RC #1	Electricity	100	Pre-1983	Spray Nozzles
RC #2	Electricity	75	Pre-1983	Spray Nozzles
RC #3	Electricity	75	2002	Spray Nozzles

#### C. Application Classification

The application for Genest does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units only per *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended).

With the fuel limit on the Maintenance and Block Plant Boilers and the Steam Generators, the facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor.

## II. BEST PRACTICAL TREATMENT

#### 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 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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. Maintenance Boiler and Block Plant Boiler

The Maintenance Boiler and the Block Plant Boiler have heat input capacities of 1.33 and 1.0 MMBtu/hour, respectively, firing distillate fuel with a maximum sulfur content of 0.5%.

Due to the size of the boilers, they 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.

1. BPT Findings

The BPT emission limits for the boilers were based on the following:

Distillate fuel:

PM/PM <sub>10</sub>	– 0.08 lb/MMBtu based on 06-096 CMR 115, BPT
SO <sub>2</sub>	– based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur); 0.5 lb/MMBtu
NO <sub>x</sub>	– 0.3 lb/MMBtu based on BPT
CO	– 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10
VOC	– 0.2 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10
Opacity	– 06-096 CMR 101

Propane:

PM/PM <sub>10</sub>	– 0.05 lb/MMBtu based on 06-096 CMR 115, BPT
SO <sub>2</sub>	– 0.018 lb/1000 gallons: AP-42, Table 1.5-1 (dated 07/08)
NO <sub>x</sub>	– 13 lb/1000 gallons: AP-42, Table 1.5-1 (dated 07/08)
CO	– 7.5 lb/1000 gallons: AP-42, Table 1.5-1 (dated 07/08)
VOC	– 1.0 lb/1000 gallons: AP-42, Table 1.5-1 (dated 07/08)
Opacity	– 06-096 CMR 101

The BPT emission limits for the Boilers are the following:

<u>Unit</u>	<u>PM</u> (lb/hr)	<u>PM<sub>10</sub></u> (lb/hr)	<u>SO<sub>2</sub></u> (lb/hr)	<u>NO<sub>x</sub></u> (lb/hr)	<u>CO</u> (lb/hr)	<u>VOC</u> (lb/hr)
Maintenance Boiler - Firing distillate	0.11	0.11	0.67	0.40	0.05	0.01
Maintenance Boiler - Firing Propane	0.07	0.07	0.01	0.19	0.11	0.01
Block Plant Boiler - Firing distillate	0.11	0.11	0.50	0.30	0.04	0.01
Block Plant Boiler - Firing Propane	0.05	0.05	0.01	0.14	0.08	0.01

Visible emissions from each boiler firing distillate fuel 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 three (3)-hour period.

Visible emissions from each boiler firing propane shall not exceed 10% opacity on a six (6)-minute block average basis, except for no more than one (1), six (6)-minute block average in a three (3)-hour period.

Genest shall be limited to 60,000 gallons per year of distillate fuel or 92,850 gallons of propane per year, or any combination of the two fuels not to exceed a heat input of 8,400 Million British thermal units per year (MMBtu/yr), based on a calendar year.

Prior to July 1, 2016 or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired in the Maintenance and Block Plant Boilers shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016 or on the date specified in the statute, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018 or on the date specified in the statute, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

#### Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document fuel use both on a monthly and calendar year basis. Documentation shall include the type of fuel used and sulfur content of the fuel as appropriate.

#### 2. 40 CFR Part 63 Subpart JJJJJ

The Maintenance Boiler and the Block Plant Boiler are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). These units are considered existing oil boilers.

Gas-fired boilers are exempt from 40 CFR Part 63, Subpart JJJJJ. However, boilers which fire distillate fuel are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR Part 63.11237]

Any boilers designed to burn fuels besides natural gas prior to June 4, 2010 will be considered an existing boiler under this rule. A boiler which currently fires natural gas, but converts back to firing another fuel (such as #2 fuel oil) in the future, would become subject as an existing boiler at the time it is converted back to fuel oil.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Maine Department of Environmental Protection has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however Genest is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program was to be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

(b) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]

6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- (c) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
- (d) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.
1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
<i>New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements</i>	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of $\leq 5$ MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)]

The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

C. Steam Generators #1 and #2

Steam Generators #1 and #2 each have a heat input capacity of 1.26 MMBtu/hr, with a maximum firing rate of 9.0 gallons per hour, drawing distillate fuel from the same tank as the Maintenance Boiler and the Block Plant Boiler.

Due to the size of the steam generators, they 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.



1. BPT Findings

The BPT emission limits for the steam generators were based on the following:

- PM/PM<sub>10</sub> – 0.08 lb/MMBtu based on 06-096 CMR 115, BPT
- SO<sub>2</sub> – based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur); 0.5 lb/MMBtu
- NO<sub>x</sub> – 0.2 lb/MMBtu based on BPT
- CO – 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10
- VOC – 0.2 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10
- Opacity – 06-096 CMR 101

The BPT emission limits for the Steam Generators are the following:

<u>Unit</u>	<u>PM</u> (lb/hr)	<u>PM<sub>10</sub></u> (lb/hr)	<u>SO<sub>2</sub></u> (lb/hr)	<u>NO<sub>x</sub></u> (lb/hr)	<u>CO</u> (lb/hr)	<u>VOC</u> (lb/hr)
Steam Generator #1	0.10	0.10	0.63	0.25	0.05	0.01
Steam Generator #2	0.10	0.10	0.63	0.25	0.05	0.01

Visible emissions from each steam generator firing distillate fuel 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 three (3)-hour period.

Genest shall be limited to 60,000 gallons per year of distillate fuel or 92,850 gallons of propane per year, or any combination of the two fuels not to exceed a heat input of 8,400 Million British thermal units per year (MMBtu/yr), based on a calendar year.

Prior to July 1, 2016 or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired in Steam Generators #1 and #2 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016 or on the date specified in the statute, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning July 1, 2018 or on the date specified in the statute, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

Periodic Monitoring

Periodic monitoring for the Steam Generators shall include recordkeeping to document fuel use both on a monthly and calendar year basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

2. 40 CFR Part 63 Subpart JJJJJ

The Steam Generators are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). These units are considered existing oil boilers.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Maine Department of Environmental Protection has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however Genest is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

<http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program was to be implemented to include the initial tune-up of applicable was due no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

(b) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]

2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
  3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
  4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
  5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
  6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- (c) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
- (d) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.
1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
<b><i>New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements</i></b>	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of $\leq 5$ MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

- (b) The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)]

The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

D. Concrete Batch Plants

Genest operates three concrete batch plants: the Block Plant is rated at 67 tons per hour, the Masa Plant is rated at 30 tons per hour, and the Paver Plant is rated at 6 tons per hour. Each batch plant includes 2 silos.

To meet the requirements of BPT for control of particulate matter (PM) emissions from each cement silo, particulate emissions shall be vented through a baghouse maintained for 99% removal efficiency. Visible emissions from the cement silo baghouse 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 one (1)-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity.

All components of the concrete batch plant 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.

E: Rock Crushers

The RC #1, RC #2 and RC #3 rock crushers are non-portable units which were manufactured pre-1983, pre-1983 and in 2002, respectively, with rated capacities of 100, 75, and 75 tons per hour respectively. Each rock crusher is equipped with operational water sprays.

The three rock crushers are subject to EPA New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons per hour for portable plants and greater than 25 tons per hour for non-portable plants based on their size.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, Genest shall maintain water sprays on the rock crushers and operate as needed to control visible emissions. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a six (6) minute block average basis.

F. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed 20% opacity, except for no more than five (5) minutes in any one 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.

G. General Process Emissions

Visible emissions from any general process (including conveyor belts, transfer points, etc.) associated with an NSPS rock crusher shall not exceed 7% opacity on a six (6)-minute block average basis.

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, truck loading operations, etc.) 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 one (1)-hour period.

H. Facility Emissions

1. Genest shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on a facility limit of 60,000 gallons per year of distillate fuel, or 92,818 gallons of propane, or any combination thereof not to exceed 8,400 MMBtu/year.

**Total Licensed Annual Emissions for the Facility**  
**Tons per year**  
(Used to calculate the annual license fee)

	<u>PM</u>	<u>PM<sub>10</sub></u>	<u>SO<sub>2</sub></u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>VOC</u>
<b>Total TPY</b>	<b>0.5</b>	<b>0.5</b>	<b>2.1</b>	<b>1.3</b>	<b>0.2</b>	<b>0.1</b>

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011 through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. "Greenhouse gases" as defined in 06-096 CMR 100 (as amended) means the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Greenhouse gases (GHG) for purposes of licensing are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Genest is below the major source threshold of 100,000 tons of CO<sub>2</sub>e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a minor new source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

<u>Pollutant</u>	<u>Tons/Year</u>
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

Based on the total facility licensed emissions, Genest is below the emissions level required for modeling.

### 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-185-71-O-R, 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 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-A. [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, 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 emissions 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) **Maintenance Boiler and Block Plant Boiler, and Steam Generators #1 and #2**
- A. Fuel
1. Total fuel use for the Maintenance Boiler, Block Plant Boiler and Steam Generators #1 and #2 shall not exceed 60,000 gallons per year of distillate fuel, or 92,818 gallons of propane, or any combination thereof not to exceed a heat input of 8,4000 MMBtu per year, based on a calendar year. [06-096 CMR 115, BPT]
  2. Prior to July 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in the boiler shall be ASTM D396 compliant (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]

3. Beginning July 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
4. Beginning July 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
5. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and calendar year basis. [06-096 CMR 115, BPT]

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

<u>Emission Unit</u>	<u>PM</u> (lb/hr)	<u>PM<sub>10</sub></u> (lb/hr)	<u>SO<sub>2</sub></u> (lb/hr)	<u>NO<sub>x</sub></u> (lb/hr)	<u>CO</u> (lb/hr)	<u>VOC</u> (lb/hr)
Mainten. Boiler - distillate	0.11	0.11	0.67	0.40	0.05	0.01
Mainten. Boiler - propane	0.07	0.07	0.01	0.19	0.11	0.01
Block Plant Boiler – dist.	0.08	0.08	0.50	0.30	0.04	0.01
Block Plant - propane	0.05	0.05	0.01	0.14	0.08	0.01
Steam Generator #1 – dist.	0.10	0.10	0.63	0.25	0.05	0.01
Steam Generator #2 – dist.	0.10	0.10	0.63	0.25	0.05	0.01

- C. Visible emissions from the Maintenance Boiler and Block Plant Boiler when firing distillate fuel, 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 three (3)-hour period. [06-096 CMR 101]
- D. Visible emissions from the Maintenance Boiler and Block Plant Boiler when firing propane, shall not exceed 10% opacity on a six (6)-minute block average, except for no more than one (1) six, (6)-minute block average in a continuous three (3)-hour period. [06-096 CMR 101]
- E. Visible emissions from Steam Generator #1 and Steam Generator #2 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 three (3)-hour period. [06-096 CMR 101]

(17) **Concrete Batch Plants**

- A. Particulate emissions from each cement silo shall be vented through a baghouse 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 each cement silo baghouse, 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 batch plant location. [06-096 CMR 115, BPT]
- C. Opacity from each cement silo baghouse is limited to no greater than 10% on a six (6)-minute block average basis, except for no more than one (1), six (6)-minute block average in a one (1)-hour period. Genest shall take corrective action if visible emissions from the baghouse 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 one (1)-hour period. [06-096 CMR 101]

(18) **Rock Crushers**

- A. Genest shall install and maintain spray nozzles for particulate control on RC #1, RC #2 and RC #3, and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis. [06-096 CMR 115 (BPT) and 06-096 CMR 101]
- B. Genest shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the primary, secondary and tertiary rock crushers. The operation log shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- C. Genest shall maintain a log detailing the maintenance on particulate matter control equipment (including spray nozzles). Genest shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required will be included in the maintenance log. The maintenance log shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]

- D. The crushers shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation. [06-096 CMR 115, BPT]
- (19) **Equipment Relocation** [06-096 CMR 115, BPT]
- A. Genest shall notify the Bureau of Air Quality, by a written notification, prior to relocation of any equipment carried on this license. It is preferred for notice of relocation to be submitted through the Department's on-line e-notice at: [www.maine.gov/dep/air/compliance/forms/relocation](http://www.maine.gov/dep/air/compliance/forms/relocation)
- Written notice may also be sent by fax (207-287-7641) or mail. Notification sent by mail shall be sent to the address below:
- Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017
- The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.
- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (20) Genest 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]

Genest Concrete Works, Inc.  
York County  
Sanford, Maine  
A-185-71-O-R (SM)

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Departmental  
Findings of Fact and Order  
Air Emission License  
Renewal

- (21) Genest 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].

DONE AND DATED IN AUGUSTA, MAINE THIS 20<sup>th</sup> DAY OF October, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Corne for  
PATRICIA W. AHO, COMMISSIONER

**The term of this license shall be ten (10) years from the signature date above.**

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 01/24/2014

Date of application acceptance: 02/04/2014

Date filed with the Board of Environmental Protection:

This Order prepared by N. Lynn Cornfield, Bureau of Air Quality.

