



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**Savage Services Corporation
Androscoggin County
Auburn, Maine
A-702-71-G-R/A**

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

FINDINGS OF FACT

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., §344 and §590, the Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

Savage Services Corporation (Savage) has applied to renew their Air Emission License permitting the operation of emission sources associated with their talk slurry processing and bulk material handling facility.

Savage has also requested a minor revision to add a soda ash transfer process to their license and to revise the list of boilers at the facility.

The equipment addressed in this license is located at 123 Rodman Road, Auburn, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license. Previous boilers firing #2 fuel oil have been removed and/or replaced with natural gas-fired boilers. The boilers have been renamed from the previous license.

Boilers

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (scf/hr)	Fuel Type, % sulfur	Install. Date	Stack #
Boiler #1	1.81	1724	Natural Gas, negligible	2005	1
Boiler #2	6.23	6227	Natural Gas, negligible	2011	2
Boiler #3	1.20	1200	Natural Gas, negligible	1998	3
Boiler #4	8.37	8369	Natural Gas, negligible	2011	4

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106 HOGAN ROAD, SUITE 6
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Process Equipment

<u>Equipment</u>	<u>Production Rate</u>	<u>Pollution Control Equipment</u>	<u>Stack #</u>
Talc Storage Silos & Slurry Processing	9.5 ton/hr	3 Dust Collectors	5, 6, 7
Dry Chemical Mixing Tank	1.4 ton/hr	2 Dust Collectors	6, 7
Soda Ash Transfer Process	30 ton/load transferred	Enclosed conveyor	N/A

The previously licensed parts washer has been removed and replaced by one which uses an aqueous-based cleaning agent and is therefore not subject to 06-096 CMR 130, *Solvent Degreasers*.

C. Application Classification

The application for Savage includes the addition of boilers to the license. Therefore, the license is considered to be a renewal with an amendment and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended).

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 (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 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 (as amended). 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

Savage operates four natural gas-fired boilers for facility heat and hot water needs. The boilers are rated at 1.81, 6.23, 1.20, and 8.37 MMBtu/hr respectively. Each boiler exhausts through their own stack.

Due to the size of the boilers, none are 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. BACT/BPT Findings

The BACT/BPT emission limits for the boiler were based on the following:

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 115, BPT/BACT
- SO₂ – 0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- NO_x – 100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- CO – 84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
- VOC – 5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
- Opacity – Visible emissions from each stack shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1), six (6) minute block average in a continuous 3 hour period.

The BACT/BPT emission limits for the boilers are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler #1 (1.81 MMBtu/hr)	0.09	0.09	0.01	0.18	0.15	0.01
Boiler #2 (6.23 MMBtu/hr)	0.31	0.31	0.01	0.60	0.51	0.03
Boiler #3 (1.20 MMBtu/hr)	0.06	0.06	0.01	0.12	0.10	0.01
Boiler #4 (8.37 MMBtu/hr)	0.42	0.42	0.01	0.81	0.68	0.04

Annual emissions were based on firing each of the boilers 8760 hours per year. Therefore, no additional fuel limit is required by this license.

2. 40 CFR Part 63 Subpart JJJJJ

Gas-fired boilers are exempt from 40 CFR Part 63 Subpart JJJJJ. 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.

C. Talc Storage Silos & Slurry Processing

Pressure differential rail cars deliver pelletized dry talc to storage silos #1 and #2. The talc is pneumatically conveyed to receivers #1 and #2, which deliver it to two kady mills (mixers) that mix the talc with heated water to form a slurry. The processed talc slurry is then transferred to two 20,000 gallon slurry storage tanks and finally to tank trucks for shipment to pulp mills. Three fabric filter dust collectors control particulate matter throughout the process. One filter serves both storage silos and is operated during talc deliveries; particulate emissions from each of the pneumatic receivers are controlled by the remaining two filters. Local exhaust air is also used to control fugitive dust during talc unloading from the differential cars.

To meet the requirements of BPT for control of particulate matter (PM), emissions from the #1 and #2 talc storage silos and the #1 and #2 pneumatic receivers shall be vented through fabric filters maintained for 99% removal efficiency. Visible emissions from each of the fabric filters shall be limited to 5% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. All components of the talc slurry plant shall be maintained to prevent PM leaks

D. Dry Chemical Mixing Tank

To meet the requirements of BPT for control of particulate matter (PM), emissions from the Dry Chemical Mixing Tank shall be vented through two fabric filter dust collectors. Visible emissions from the two dust collector vents shall be limited to 5% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. All components of the Dry Chemical Mixing Tank shall be maintained to prevent PM leaks. A log documenting all maintenance performed on the Dry Chemical Mixing Tank shall be kept.

E. Soda Ash Transfer Process

Savage transfers soda ash from rail cars to tank trailers. The soda ash drops from the bottom of the rail car through a funnel onto a conveyor. The enclosed conveyor brings the soda ash up to the top of the tank trailer where it drops down a chute into the trailer.

Savage transfers approximately seven (7) loads of soda ash per month. Due to the low number of loads transferred and the minimal amount of fugitive dust created, installation of a baghouse for this process is not economically justifiable. However, this determination may be revisited should the scope of the process change.

To meet the requirements of BACT for control of particulate matter (PM), Savage shall use an enclosed conveyor and telescoping chute whenever soda ash is transferred as described above. All components of the soda ash transfer equipment shall be maintained so as to prevent PM leaks. Visible emissions from soda ash transfer 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. A log documenting the number of loads of soda ash transferred per month shall be kept.

F. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) 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.

G. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% 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.

H. Annual Emissions

1. Total Annual Emissions

Savage shall be restricted to the following annual emissions, based on a calendar year. The tons per year limits were calculated based on each boiler firing 8760 hours per year.

Total Licensed Annual Emissions for the Facility

Tons/year

(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boiler #1	0.40	0.40	–	0.77	0.65	0.04
Boiler #2	1.36	1.36	0.02	2.65	2.22	0.15
Boiler #3	0.26	0.26	–	0.51	0.43	0.03
Boiler #4	1.83	1.83	0.02	3.56	2.99	0.20
Total TPY	3.85	3.85	0.04	7.49	6.29	0.42

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), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

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, Savage is below the major source threshold of 100,000 tons of CO₂e 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 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:

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

Based on the total facility licensed emissions, Savage 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, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-702-71-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 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) **Boilers**

A. Fuel

Boilers #1, #2, #3, and #4 shall each fire only natural gas.
[06-096 CMR 115, BPT/BACT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #2	PM	0.05	06-096 CMR 115, BPT/BACT
Boiler #4	PM	0.05	06-096 CMR 115, BPT/BACT

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

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.09	0.09	0.01	0.18	0.15	0.01
Boiler #2	0.31	0.31	0.01	0.60	0.51	0.03
Boiler #3	0.06	0.06	0.01	0.12	0.10	0.01
Boiler #4	0.42	0.42	0.01	0.81	0.68	0.04

- D. Visible emissions from each boiler shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) Process Equipment

- A. Particulate emissions from the talc storage silos #1 and #2 and pneumatic receivers #1 and #2 shall be vented through fabric filters. The fabric filters and all components of the facility shall be maintained so as to prevent excess emissions and PM leaks. [06-096 CMR 115, BPT]
- B. Particulate emissions from the Dry Chemical Mix Tank shall be vented through dust collectors. The dust collectors shall be maintained so as to prevent excess emissions and PM leaks. [06-096 CMR 115, BPT]
- C. The licensee shall keep a maintenance log recording the date and location of all filter failures as well as all routine and non-routine maintenance conducted on the fabric filters and the dust collectors. The maintenance log shall be kept on-site at the facility. [06-096 CMR 115, BPT, BPT]
- D. Visible emissions from each fabric filter and from each of the dust collector vents shall not exceed 5% opacity on a 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 115, BPT]
- E. Savage shall use an enclosed conveyor and telescoping chute whenever a load of soda ash is transferred. All components of the soda ash transfer equipment shall be maintained so as to prevent PM leaks. [06-096 CMR 115, BACT]
- F. Visible emissions from soda ash transfer 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. [06-096 CMR 101]
- G. A log documenting the number of loads of soda ash transferred per month shall be kept. [06-096 CMR 115, BACT]

(18) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) 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]

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(19) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% 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) Savage 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 7 DAY OF March, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Marie 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: 1/31/13

Date of application acceptance: 1/31/13

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Poland, Bureau of Air Quality.

