



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

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COMMISSIONER

**Savage Services Corporation
Androscoggin County
Auburn, Maine
A-702-71-I-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

FINDINGS OF FACT

After review of the air emissions license amendment 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

Savage Services Corporation (Savage) was issued Air Emission License A-702-71-G-R/A on March 7, 2013 permitting the operation of emission sources associated with their bulk material handling facility. The license was subsequently amended on April 1, 2014 (A-702-71-H-A).

Savage has requested a minor revision to their license in order to:

1. Reinstate the previously licensed Soda Ash Transfer process;
2. Remove the currently licensed Cement Transfer process; and
3. Add a 1.0 MMBtu/hr natural gas-fired boiler (Boiler #5).

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

B. Application Classification

This amendment will not increase emissions of any pollutant. Therefore, this amendment is determined to be a minor revision and has been processed as such.

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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.

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.

B. Soda Ash and Cement Transfer Processes

Savage was previously licensed to transfer soda ash from rail cars to tank trailers. In air emission license A-702-71-H-A, Savage requested, and was granted approval, to remove this process and replace it with a process to transload dry cement from railcars to tank trailers using the same equipment. The cement project did not proceed, but Savage was able to retain the soda ash business. Therefore, Savage has requested that the Soda Ash Transfer process be reinstated and the Cement Transfer process be removed from their license.

In the Soda Ash Transfer process, 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.

C. Boiler #5

Savage wishes to install a new boiler (Boiler #5) to provide facility hot water. The boiler is rated at 1.0 MMBtu/hr and fires natural gas.

Due to its size Boiler #5 is 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. BACT Findings

The BACT emission limits for Boiler #5 were based on the following:

- PM/PM₁₀ – 0.05 lb/MMBtu based on 06-096 CMR 115, 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 – 06-096 CMR 101

The BACT emission limits for the boiler are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #5	0.05	0.05	neg	0.10	0.08	0.01

Visible emissions from Boiler #5 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 3 hour period.

2. 40 CFR Part 63 Subpart JJJJJ

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

D. Annual Emissions

1. Total Annual Emissions

Savage shall be restricted to the following annual emissions, based on a 12 month rolling total (or calendar year). The tons per year limits were calculated based on the following:

- Each boiler operating for 8760 hours per year;
- Operation of the HCl scrubber for 8760 hours per year; and
- The assumption that PM emissions from the remaining process equipment is unquantifiable.

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	HCl
Boiler #1	0.4	0.4	–	0.8	0.7	0.1	–
Boiler #2	1.4	1.4	0.1	2.7	2.2	0.2	–
Boiler #3	0.3	0.3	–	0.5	0.4	0.1	–
Boiler #4	1.8	1.8	0.1	3.6	3.0	0.2	–
Boiler #5	0.2	0.2	–	0.4	0.4	–	–
HCl Scrubber	–	–	–	–	–	–	0.1
Total TPY	4.1	4.1	0.2	8.0	6.7	0.6	0.1

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, *facility* 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.

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-I-M subject to the conditions found in Air Emission License A-702-71-G-R/A, in amendments A-702-71-H-A, and in 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.

Condition (22) of Air Emission License A-702-71-H-A is DELETED.

The following shall replace Condition (16) of Air Emission License A-702-71-G-R/M:

(16) Boilers

A. Fuel

Boilers #1, #2, #3, #4, and #5 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)	PM₁₀ (lb/hr)	SO₂ (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
Boiler #5	0.05	0.05	neg	0.10	0.08	0.01

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]

The following are NEW Conditions:

(23) Soda Ash Transfer Process

A. 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]

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- B. 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]
- C. A log documenting the number of loads of soda ash transferred per month shall be kept. [06-096 CMR 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 24 DAY OF June, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marie Allen Robert Core for
PATRICIA W. AHO, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-702-71-G-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/2/14

Date of application acceptance: 6/2/14

Date filed with the Board of Environmental Protection:

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

