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**Rumford Paper Company
Oxford County
Rumford, Maine
A-214-70-G-R/A**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal/Amendment**

After review of the Part 70 License renewal 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 Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

| | |
|--------------------|---|
| FACILITY | Rumford Paper Company |
| LICENSE TYPE | Part 70 License Renewal Part 70 Significant License Modification |
| NAICS CODES | 322121 |
| NATURE OF BUSINESS | Pulp & Paper Mill |
| FACILITY LOCATION | 35 Hartford Street, Rumford, Maine |

Rumford Paper Company is an integrated pulp and paper manufacturing facility that began operation in 1901. The mill consists of both Kraft (chemical pulping) and groundwood pulping systems, a paper production process system, a pulp dryer process system, and supporting industrial systems, including power and steam production, landfill operations, and wastewater treatment.

Rumford Paper Company (or the Mill) has the potential to emit more than 100 tons per year (TPY) of particulate matter (PM), Particulate Matter under 10 micrometers (PM₁₀), particulate matter under 2.5 micrometers (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), and carbon monoxide (CO); more than 50 TPY of volatile organic compounds (VOC); and more than 100,000 TPY of carbon dioxide equivalent (CO₂e); therefore, the facility is a major source for criteria pollutants. Rumford Paper Company has the potential to emit more than 10 TPY of a single hazardous air pollutant (HAP) or more than 25 TPY of combined HAP; therefore, the facility is a major source for HAP emissions.

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PRESQUE ISLE, MAINE 04679-2094
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B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Boilers

| <u>Equipment</u> | <u>Maximum Heat Input Capacity (MMBtu/hr)</u> | <u>Fuel Type*</u> | <u>Manuf. Date</u> | <u>Stack #</u> |
|------------------|---|--|-------------------------------------|----------------|
| Power Boiler #3 | 300 | #6 fuel oil, natural gas, LVHCs, HVLCs, SOGs, specification and off-spec. used oil | 1948 | 3 |
| Cogen Boiler #6 | 610 (annual) 630 (24-hr) | #6 fuel oil, natural gas, biomass, coal, TDF, DPC, specification and off-spec. used oil, lime kiln rejects, LVHCs, HVLCs, SOGs | 1986 (started operation in 1990) | 6&7 |
| Cogen Boiler #7 | 610 (annual) 630 (24-hr) | | | |

*

| | |
|---|---------------------------|
| TDF – Tired-Derived Fuel | SOGs – Stripper Off-Gases |
| LVHCs – Low Volume, High Concentration Gases | |
| HVLCs – High Volume, Low Concentration Gases | |
| DPC – Delayed Petroleum Coke, a byproduct of petroleum refining | |

Power Boiler #5 has been permanently shut down and removed from the air emission license per NSR License A-214-77-11-O issued February 27, 2013. As documented in the NSR license, 204.5 tons of NOx emission offset credits resulted from the permanent shutdown of Power Boiler #5 at the Rumford Paper Company facility. The facility is required to notify the Department in writing of any sale or other transfer of these credits within 30 days of such sale or transfer.

Fuel-Burning Process Equipment

| <u>Equipment</u> | <u>Max. Capacity (MMBtu/hr)</u> | <u>Rate / Capacity</u> | <u>Fuel Type, % sulfur</u> | <u>Control Equipment</u> | <u>Stack #</u> |
|--|---------------------------------|------------------------|--|--|----------------|
| Lime Kiln | 100 (#6 fuel oil) | 350 tons/day CaO | #6 fuel oil, natural gas, LVHCs | Wet Scrubber | KILN |
| | 110 (natural gas) | | | | |
| Recovery Boiler C | 759 (fuel oil) | 4.4 MMlb BLS/day | #6 fuel oil, natural gas, black liquor, soap | Electrostatic Precipitator (ESP) | CREC |
| #1, #2, #3, and #4 Flotation Dryers | #1 & #3 @ 6.4 #2 & #4 @ 8.05 | -- | Propane, natural gas | -- | fugitive |
| Landfill Flare | 15 | -- | Propane (supplemental) | -- | Flare |

Production Equipment

| <u>Equipment</u> | <u>Production Rate/Capacity</u> | <u>Pollution Control Equipment</u> | <u>Exhaust or Stack #</u> | |
|--|---------------------------------|--------------------------------------|---------------------------|-------------|
| Methanol Storage Tank | 20,000 gallons | -- | -- | |
| Smelt Tank C | 4.4 MMlb BLS/day | 2 Venturi scrubbers | CR15, 18 | |
| Lime Slaker | 1,050 gpm | Static scrubber | LK16 | |
| Bleach Plant – Lines A and B | -- | Wet scrubber system | SCRB | |
| Bleach Plant – R8 ClO ₂ Plant | | Scrubber | S16 | |
| Kamyr Continuous Digester System | | Collection system, then incineration | LVHC/HVLC System | |
| Batch Digester System | | | LVHC System | |
| A Line and B Line Brownstock Washers | | | HVLC System | |
| Multiple Effect Evaporators | | 4.4 MMlb BLS/day | | LVHC System |
| Groundwood Operations | | 250 ADTUBP per day | -- | fugitive |
| Bulk Handling Systems | -- | baghouses | | |
| Steam Stripper System | | -- | SOG System | |
| SOG System | | Collection system, then incineration | -- | |
| LVHC System | | | | |
| HVLC System | | | | |
| R-10, R-12, and R-15 Paper Machines and On-Machine Coaters | | | -- | fugitive |
| R-9 Pulp Dryer | | | | |

Natural Gas Building Air Heaters

| <u>Equipment</u> | <u>Max.Capacity (MMBtu/hr)</u> | <u>Maximum Firing Rate (scf/hr)</u> | <u>Installation Date</u> |
|------------------|--------------------------------|-------------------------------------|--------------------------|
| NG Unit 1 | 6.54 | 6,350 | 2003 |
| NG Unit 2 | 9.62 | 9,340 | 2004 |
| NG Unit 3 | 5.51 | 5,353 | |
| NG Unit 4 | 5.51 | 5,353 | |
| NG Unit A | 2.05 | 1,992 | 2003 |
| NG Unit B | 14.11 | 13,700 | |
| NG Unit C | 6.41 | 6,225 | |
| NG Unit D | 6.32 | 6,136 | 2004 |
| NG Unit E | 5.13 | 4,980 | |

| <u>Equipment</u> | <u>Max.Capacity (MMBtu/hr)</u> | <u>Maximum Firing Rate (scf/hr)</u> | <u>Installation Date</u> |
|------------------|--------------------------------|-------------------------------------|--------------------------|
| NG Unit F | 4.62 | 4,482 | 2004 |
| NG Unit G | 6.41 | 6,225 | |
| NG Unit H | 14.12 | 13,695 | |
| NG Unit I | 7.69 | 7,466 | 2003 |
| NG Unit J | 12.83 | 12,456 | |
| NG Unit K | 7.69 | 7,470 | 2004 |
| NG Unit L | 6.32 | 6,136 | |
| NG Unit RB | 10.0 | 9,709 | 2007 |

Generators and Engines

| <u>Equipment</u> | <u>Maximum Input Capacity (MMBtu/hr)</u> | <u>Output (kW or hp)</u> | <u>Fuel Type, % sulfur</u> | <u>Mfr. Date</u> | <u>Install. Date</u> |
|-------------------------------|--|--------------------------|----------------------------|------------------|----------------------|
| Cogen Emergency Generator | 1.5 | 150 kW | Diesel, 0.0015% | - | 2002 |
| R15 Emergency Generator | 1.2 | 125 kW | | - | 2001 |
| Mill Emergency Generator | 5.4 | 558 kW | | - | 1999 |
| Diesel Fire Water Pump | 1.6 | 230 hp | | - | 1984 |
| Lift Pump Emergency Generator | 5.1 | 779 hp | | 2007 | 2008 |
| Lime Kiln Auxiliary Drive | 0.6 | 62 kW | Natural Gas/Propane | - | 1990 |

Note: Emission units which have listed capacities within the Findings of Fact of this license are referenced for the purpose of description only. Capacities that are a licensed limit are listed as such within the Order of the license.

The Mill has additional, insignificant activities which do not need to be listed in the emission equipment tables above. These insignificant activities include but are not limited to the following equipment associated with papermaking: hydropulpers, pulp/broke tanks, stock chests, bulk pulp handling, process water and white water storage tanks, winders, supercalendars, and roll wrapping operations. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

C. Application Classification

The application for Rumford Paper Company is for the renewal of their Part 70 Air Emission License (A-214-70-A-I, issued July 30, 2003) and incorporation of subsequent Part 70 amendments. Pursuant to Section 2(A) of 06-096 CMR 140, Rumford Paper Company has also requested incorporation into the Part 70 Air Emission License the relevant terms and conditions of the 06-096 CMR 115 New Source Review (NSR) licenses issued to Rumford Paper Company, including the following NSR licenses:

- A-214-77-1-A, issued April 18, 2006;
- A-214-77-3-A, issued November 7, 2007;
- A-214-77-4-A, issued December 26, 2007;
- A-214-77-6-A, issued June 20, 2008;
- A-214-77-11-O, issued February 27, 2013; and
- A-214-77-12-A, issued October 8, 2013.

Therefore, the license is considered to be a Part 70 License renewal with the incorporation of NSR requirements.

Previous NSR licenses A-214-77-2-A (December 19, 2007) and A-214-77-9-A (January 8, 2010) established BART eligibility for Power Boiler #5 and set federally enforceable emission limits on the unit to keep it below applicability thresholds. Since then, NSR license A-214-77-11-O (February 27, 2013) permanently removed Power Boiler #5 from the air emission license. Therefore, no request is required to incorporate licenses A-214-77-2-A and A-214-77-9-A into this Part 70 Air Emission License.

D. Facility Description

Rumford Paper Company produces bleached Kraft pulp and mechanical groundwood pulp. The Kraft pulp is produced in the Pulp Mill. Groundwood pulp is produced in a separate process line at the Groundwood Mill. Rumford Paper Company produces a wide variety of paper grades and market pulp.

Hardwood and softwood chips received at the mill are stored in piles for eventual processing and use in the Pulp Mill. Chips from the piles are screened and then sent on to the Pulp Mill. Poplar logs are received at the Long-Log Area, where they are debarked and cut into smaller logs and stored in a pile. Bark from the debarker and fines from the chip screens are burned as biomass in Cogen Boilers #6 and #7.

The smaller poplar logs from the Long-Log Area are used in the Groundwood Mill. The logs are processed through a set of grinders, and the resulting pulverized material is mixed with water to form groundwood pulp slurry. This

slurry is screened and cleaned, sent to deckers for thickening, bleached, and then sent on to the Paper Mill.

The Pulp Mill consists of two separate, parallel, Kraft chemical pulping process lines. Screened chips from the storage piles are sent to one of the two process lines. In the Kraft process, pulp is produced by reaction of the chips with steam and white liquor for a period of time in a pressurized vessel called a digester. The digester chemicals separate the fibers and dissolve lignin while maintaining fiber strength. The resulting pulp, called brownstock, is washed and screened in the brownstock washer systems to clean the fibers and remove spent pulping chemicals and lignin, and then sent to the Bleach Plant.

The mixture of spent pulping chemicals and lignin from the digesters, referred to as weak black liquor, is collected and conveyed to the Recovery area. Here, weak black liquor is concentrated using a multiple effect evaporation system. The resulting concentrated black liquor, with a black liquor solids (BLS) content of 70% or more, is burned in a recovery boiler for recovery of pulping chemicals and to generate steam. The pulping chemicals left over after combustion of black liquor are collected in the bottom of the Recovery Boiler as molten "smelt". The smelt flows out of the bottom of Recovery Boiler C to a Smelt Dissolving Tank, where the hot smelt mixes with weak wash or water to form green liquor. Steam generated from this process is vented from the Smelt Tank through two smelt tank scrubbers. Green liquor is conveyed to the causticizing area, where lime is added, forming white liquor and lime mud. The white liquor is reused in the pulping process, and the lime mud is washed, filtered, and sent to the lime kiln for lime reclamation.

At the Bleach Plant, the pulp passes through one of two parallel, multi-staged bleaching processes to achieve the whiteness and brightness levels required for various products. Chlorine dioxide (ClO_2) used in the elemental chlorine-free bleaching process is manufactured onsite using an R-8 process.

Pulp produced at Rumford Paper Company is either used in the Paper Mill area or dried and baled on the Pulp Dryer. The Paper Mill area consists of all the equipment and operations used to convert pulp to paper, including stock preparation, coating preparation, starch handling, paper machines, finishing, storage, and shipping.

Gas streams containing non-condensable gases in high concentrations and low volume (LVHC gas streams) collected throughout the process from certain units in the Pulp Mill and Recovery area are conveyed to Power Boiler #3, to either of the Cogen Boilers, or to the Lime Kiln for combustion. The high-volume, low-concentration (HVLC) emissions from certain other units are collected and conveyed to Power Boiler #3 or the Cogen Boilers and combusted.

The Condensate Steam Stripper removes methanol and TRS from pulping condensates from the Pulp Mill and Recovery areas. The stripper off-gases (SOG, which is methanol, TRS, and other HAP pollutants removed from the condensates) are combusted in either Power Boiler #3 or one of the Cogen Boilers.

Rumford Paper Company produces steam and electricity for mill operations using Recovery Boiler C, Cogen Boilers #6 and #7, and Power Boiler #3. Electricity is also purchased from the grid. Mill operations are also served by a water treatment plant, a wastewater treatment plant, an offsite landfill, a quality control print laboratory, and several maintenance and repair shops.

E. General Facility Requirements

Rumford Paper Company is subject to the following state and federal regulations listed below, in addition to the regulations listed for specific units as described further in this license.

| <u>Citation</u> | <u>Requirement Title</u> |
|----------------------------|---|
| 06-096 CMR 101 | Visible Emissions |
| 06-096 CMR 102 | Open Burning |
| 06-096 CMR 103 | Fuel Burning Equipment Particulate Emission Standard |
| 06-096 CMR 105 | General Process Source Particulate Emission Standard |
| 06-096 CMR 106 | Low Sulfur Fuel |
| 06-096 CMR 109 | Emergency Episode Regulation |
| 06-096 CMR 110 | Ambient Air Quality Standard |
| 06-096 CMR 113 | Growth Offset Regulation |
| 06-096 CMR 116 | Prohibited Dispersion Techniques |
| 06-096 CMR 117 | Source Surveillance |
| 06-096 CMR 124 | Total Reduced Sulfur Control from Kraft Mills |
| 06-096 CMR 130 | Solvent Degreasers |
| 06-096 CMR 134 | Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT) |
| 06-096 CMR 137 | Emission Statements |
| 06-096 CMR 138 | Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides (NO _x RACT) |
| 06-096 CMR 140 | Part 70 Air Emission License Regulations |
| 06-096 CMR 143 | New Source Performance Standards (NSPS) |
| 06-096 CMR 144 | National Emission Standards for Hazardous Air Pollutants (NESHAPs) |
| 06-096 CMR 156 | CO ₂ Budget Trading Program (RGGI) |
| 40 CFR Part 60, Subpart Db | Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units |
| 40 CFR Part 60, Subpart BB | Standards of Performance for Kraft Pulp Mills |

| <u>Citation</u> | <u>Requirement Title</u> |
|-------------------------------|---|
| 40 CFR Part 60, Subpart IIII | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines |
| 40 CFR Part 61, Subpart E | National Emission Standards for Mercury |
| 40 CFR Part 63, Subpart S | National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry |
| 40 CFR Part 63, Subpart MM | National Emission Standards for Hazardous Air Pollutants For Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill |
| 40 CFR Part 63, Subpart ZZZZ | National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines |
| 40 CFR Part 63, Subpart DDDDD | National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters |
| 40 CFR Part 70 | State Operating Permit Programs |
| 40 CFR Part 98 | Mandatory Greenhouse Gas Reporting |

Note: CMR = Code of Maine Regulations CFR = Code of Federal Regulations

F. Units of Measurement

The following units of measurement and their corresponding abbreviated symbols are used in this license:

| | |
|--------------|---|
| ADTUBP/day | air dried tons unbleached pulp per day |
| g/dscm | grams per dry standard cubic meters |
| gpm | gallons per minute |
| gr/dscf | grains per dry standard cubic feet |
| hp | horsepower |
| lb/ADTP | pounds per air dried ton of pulp |
| lb/hr | pounds per hour |
| lb/MMBtu | pounds per million British Thermal Units |
| lb/MMscf | pounds per million standard cubic feet |
| lb/MWh | pounds per megawatt hour |
| lb/ton | pounds per ton |
| lb/ton BLS | pounds per ton of black liquor solids |
| MMBtu/hr | million British Thermal Units per hour |
| MMlb BLS/day | million pounds of black liquor solids per day |
| MMscf | million standard cubic feet |
| MMscf/hr | million standard cubic feet per hour |
| kpph | thousand pounds per hour |
| kW | kilowatt |
| ppm | parts per million |
| ppmv | parts per million by volume |
| ppmw | parts per million by weight |
| scf | standard cubic feet |

| | |
|----------|------------------------------|
| scf/hr | standard cubic feet per hour |
| tons/day | tons per day |
| tpy | tons per year |

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction to BPT

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 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 following:

- 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. NO_x RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 CMR 138 (as amended), is applicable to sources that have the potential to emit quantities of NO_x equal to or greater than 100 tons per year. Amendment A-214-71-S-A/R, issued September 3, 1996, addressed NO_x RACT requirements. NO_x RACT requirements of 06-096 CMR 138 apply to the following emission units at Rumford Paper Company's facility: Power Boiler #3, Cogen Boilers #6 and #7, Recovery Boiler C, the Lime Kiln, and the emergency diesel units. The NO_x RACT requirements for these units are incorporated into this renewal.

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 CMR 134 (as amended), is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons per year. Amendment A-214-71-S-A/R, issued September 3, 1996, addressed VOC RACT requirements. VOC RACT requirements of 06-096 CMR 134 apply to the following emission units at Rumford Paper Company's facility: the Bleach Plant, Waste Water Treatment Facility, Pulp Stock Washer Systems, Pulp Liquor Storage Tanks, Digesters and Multiple Effect Evaporators, Smelt Tank C, the Lime Kiln, and the facility's Groundwood Operations. VOC RACT requirements are incorporated in this license renewal.

D. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*, which contains GHG reporting and related monitoring and recordkeeping requirements, is applicable to the owners/operators of any facility which falls into any one of three categories, per 40 CFR Part 98, Subpart A, *General Provision*, §98.2, *Who must report?* Rumford Paper Company is a pulp and paper manufacturing facility, as found in Table A-4 of this subpart, and is therefore subject under (a)(2) of 40 CFR Part 98, §98.2.

Subpart A of 40 CFR Part 98 contains general provisions and definitions that apply to all industrial facilities, while Subpart C includes requirements for combustion sources. As a pulp and paper mill, the Rumford Mill is further subject to the requirements of 40 CFR Part 98, Subpart AA.

Per 40 CFR §98.350, Subpart II does not apply to the Rumford Paper Mill, because the Mill does not utilize an anaerobic process to treat industrial wastewater and/or industrial wastewater treatment sludge.

The Farrington Mountain Landfill associated with the Rumford Mill is not contiguous or adjacent to the Rumford Mill property, and its annual emissions are less than 25,000 metric tons CO₂e. Therefore, per 40 CFR §98.6 (definition of "facility") and per 40 CFR §98.2(a)(2) (reporting threshold for industrial waste landfills), Subpart TT does not apply.

E. Best Available Retrofit Technology (BART)

With the removal of Power Boiler #5 in license A-214-77-11-O (February 27, 2013), the facility no longer has any units subject to BART requirements.

F. PSD/NSR/BACT Review

The U.S. Environmental Protection Agency (EPA) issued PSD Permit Number 003-107 ME 01 on April 16, 1979, to Oxford Paper Company – a subsidiary of Boise Cascade Corporation, now operating as Rumford Paper Company. The license was issued permitting construction and operation of Recovery Boiler C and Smelt Tank C. The facility has constructed and operates these two units and has obtained the appropriate air licenses to address these changes.

Additional PSD/NSR licenses were issued, as follows:

| <u>NSR License Number</u> | <u>Issue Date</u> | <u>To License...</u> |
|---------------------------|-------------------|--|
| A-214-77-1-A | April 18, 2006 | Additional rappers to be installed in the C Recovery ESP |
| A-214-77-2-A | December 19, 2007 | Best Available Retrofit Technology (BART) determination |

| <u>NSR License Number</u> | <u>Issue Date</u> | <u>To License...</u> |
|---------------------------|-------------------|--|
| A-214-77-3-A | November 7, 2007 | The addition of a 10 MMBtu/hour natural gas space heater (NG Unit RB) |
| A-214-77-4-A | December 6, 2007 | Modification of current monitoring and testing requirements |
| A-214-77-5-A | February 29, 2008 | SO ₂ emission limits for C Recovery and Boilers #3 and #5 and opacity limits on C Recovery during certain operating scenarios, clarification of averaging times, and the addition of a lift pump emergency generator |
| A-214-77-6-A | June 20, 2008 | Upgrades to the R9 Pulp Dryer |
| A-214-77-7-A | September 2, 2008 | The firing of natural gas in the Lime Kiln |
| A-214-77-8-A | August 24, 2009 | Alignment of the frequency of stack testing with State statute, adjustment of the Relative Accuracy Test Audit (RATA) frequency when the equipment has reduced operating hours, and inclusion of flexible operating scenarios for the Cogen Boilers #6 and #7 SO ₂ limits |
| A-214-77-9-M | January 8, 2010 | State and federally enforceable emission limits for PM, SO ₂ , and NO _x from Power Boiler #5 that are below the applicability threshold for BART |
| A-214-77-11-O | February 27, 2013 | Permanent shutdown of Power Boiler #5 for the purpose of obtaining NO _x offset credits. |
| A-214-77-12-A | October 8, 2013 | Addition of Construction/Demolition Debris (CDD) as a licensed biomass fuel for Cogen Boilers #6 and #7 |

G. NESHAPs 40 CFR Part 63, Subpart DDDDD: Boiler MACT

Because the Mill is a major source of HAP emissions, some emissions units at the facility are subject to the requirements of the federal regulation 40 CFR Part 63, Subpart DDDDD, *NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters*. This regulation establishes emissions limitations and work practice standards governing HAP emissions from units located at major sources of HAPs, for each unit which falls into one of the subcategories listed under *Types of Boilers and Process Heaters* in 40 CFR §63.7499. Specific requirements of Subpart DDDDD applicable to boilers and process heaters at this facility are addressed in each area specific to an affected unit.

The Boiler MACT rule includes many detailed compliance options and requirements which differ depending on the boiler subcategory, fuels, regulated

pollutants, etc. This license identifies applicable requirements of the rule by reference where multiple compliance options exist, allowing the Mill the flexibility to evaluate multiple compliance options while still ensuring compliance by the effective dates of the rule.

Energy Assessment

The facility shall have a one-time energy assessment performed by a qualified energy assessor no later than the compliance date specified in 40 CFR §63.7495, or comply with any amended requirements of the rule. The energy assessment must include the elements specified in Part 4 of Table 3 of Subpart DDDDD, as applicable. [40 CFR §63.7510(e)]

Note: An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the aforementioned energy assessment requirements is valid. A facility that operates under an energy management program compatible with ISO 50001 that includes applicable boilers and process heaters satisfies the energy assessment requirements.

Recordkeeping

The Mill shall maintain records in accordance with 40 CFR §63.7555 and containing information necessary to document compliance with all applicable requirements, including but not limited to the following:

1. A copy of each notification and report submitted to comply with this Subpart, along with any supporting documentation.
2. Records of energy assessments and tune-ups, as applicable.

The Mill shall maintain records in accordance with 40 CFR §63.10(b).

Reporting

Rumford Paper Company shall submit applicable compliance reports as required by this Subpart in accordance with 40 CFR §63.7550.

Initial Notification

Rumford Paper Company submitted their Boiler MACT Initial Notification on May 31, 2013, to both the Department and U.S. EPA Region I and in accordance with 40 CFR §63.9(b) and §63.7545(a).

H. Compliance Assurance Monitoring (CAM)

Federal regulation 40 CFR Part 64, *Compliance Assurance Monitoring*, is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 tons/year for any criteria pollutant. This regulation's 40 CFR §64.2(b)(1)(vi) specifies the exemption from specific CAM requirements for any emission units subject to emission limitations or standards for which a Part 70 air emission license specifies

a continuous compliance determination method. Furthermore, 40 CFR Part 64, §64.2(b)(1)(i) specifies the exemption from specific CAM requirements for any emission units subject to emission limitations or standards in a NSPS or NESHAP's regulation proposed by the Administrator after November 15, 1990. [40 CFR Part 64 §64.2(b)]

The following table lists all the specific pollutants for each unit meeting CAM applicability criteria and the determination of the applicability of CAM requirements for each.

40 CFR Part 64 Applicability Table

| <u>Units</u> | <u>Eligible Pollutant</u> | <u>CAM Required</u> | <u>Reason CAM is Not Applicable</u> | <u>Regulatory Authority</u> |
|-----------------------|---------------------------|---------------------|--|--|
| Boiler #3 | PM/PM ₁₀ | No | Subject to emissions limits in NESHAP 40 CFR Part 63, Subpart DDDDD proposed after November 15, 1990 | 40 CFR §64.2(b)(1)(i) |
| | SO ₂ | No | Operating a SO ₂ CEMS | 40 CFR §64.2(b)(1)(vi) |
| | NO _x | No | Operating a NO _x CEMS | 40 CFR §64.2(b)(1)(vi) |
| Cogen Boilers #6 & #7 | PM/PM ₁₀ | No | Operating a COMS [40 CFR §64.2(b)(1)(vi)]; Subject to NSPS 40 CFR Part 60, Subpart Db; and Subject to NESHAP 40 CFR Part 63, Subpart DDDDD proposed after Nov. 15, 1990 | 40 CFR §64.2(b)(1)(i) |
| | SO ₂ | No | Operating a SO ₂ CEMS ; Subject to NSPS 40 CFR Part 60, Subpart Db proposed after Nov. 15, 1990 | 40 CFR §64.2(b)(1)(vi) |
| | NO _x | No | Operating a NO _x CEMS; Subject to NSPS 40 CFR Part 60, Subpart Db proposed after Nov. 15, 1990; and no NO _x -specific control device | 40 CFR §64.2(b)(1)(vi) and 40 CFR §64.2(a) |
| Lime Kiln | PM/PM ₁₀ | No | Subject to NSPS 40 CFR Part 60, Subpart BB reissued after Nov. 15, 1990, and NESHAP 40 CFR Part 63, Subpart MM proposed after Nov. 15, 1990 | 40 CFR §64.2(b)(1)(i) |
| | SO ₂ | No | No SO ₂ -specific control device | 40 CFR §64.2(a) |
| | NO _x | No | No NO _x -specific control device | 40 CFR §64.2(a) |
| | TRS | No | Operating a TRS CEMS and Subject to NSPS 40 CFR Part 60, Subpart BB reissued after Nov. 15, 1990 | 40 CFR §64.2(b)(1)(vi) |
| Recovery Boiler C | PM/PM ₁₀ | No | Operating a COMS; Subject to NSPS 40 CFR Part 60, Subpart BB reissued after Nov. 15, 1990; and subject to NESHAP 40 CFR Part 63, Subpart MM proposed after Nov. 15, 1990 | 40 CFR §64.2(b)(1)(vi) |

| <u>Units</u> | <u>Eligible Pollutant</u> | <u>CAM Required</u> | <u>Reason CAM is Not Applicable</u> | <u>Regulatory Authority</u> |
|-------------------|---------------------------|---------------------|--|--|
| Recovery Boiler C | SO ₂ | No | Operating a SO ₂ CEMS and No SO ₂ -specific control device | 40 CFR §64.2(b)(1)(vi) and 40 CFR §64.2(a) |
| | NO _x | No | Operating a NO _x CEMS and No NO _x -specific control device | 40 CFR §64.2(b)(1)(vi) and 40 CFR §64.2(a) |
| | TRS | No | Operating a TRS CEMS and Subject to NSPS 40 CFR Part 60, Subpart BB reissued after Nov. 15, 1990 | 40 CFR §64.2(b)(1)(vi) |
| Smelt Tank C | PM/PM ₁₀ | No | Subject to emission limits in NSPS 40 CFR Part 60, Subpart BB reissued after Nov. 15, 1990, and NESHAP 40 CFR Part 63, Subpart MM proposed after November 15, 1990 | 40 CFR §64.2(b)(1)(i) |
| | TRS | No | No TRS-specific control device and pre-control emissions less than 100 tpy and Subject to NSPS 40 CFR Part 60, Subpart BB reissued after Nov. 15, 1990 | 40 CFR §64.2(a) |

Therefore, there are no units at the Mill subject to CAM requirements.

I. Stack Testing for Particulate Matter

The previous license required stack testing of Boiler #3, Cogen Boilers #6 and #7, Lime Kiln, Recovery Boiler C, and Smelt Tank C for particulate matter once every two years. The statutory requirement contained in 38 M.R.S.A. §589, §§2 has been revised as follows:

A person is not required to conduct stack tests for particulate matter on a source monitored by a continuous monitoring device for opacity as specified by 40 Code of Federal Regulations, Part 60, Appendix B, Specification 1 or appropriate surrogate parameters as required by the commissioner more frequently than once every 5 years unless visible emissions, operating parameters, or other information indicates the source may be operating out of compliance with any applicable emission standard or unless there are more stringent federal requirements. If visible emissions, operating parameters, or other information indicates potential noncompliance with an air emission standard, or if there are more stringent federal requirements, the Department may require additional stack tests.

The timeframe for PM stack testing was revised in NSR licenses A-214-77-7-M (September 2, 2008) and A-214-77-8-M (August 24, 2009), and incorporated into the Part 70 license in A-214-70-I-A (October 6, 2009) for Cogen Boilers #6 and #7 and Recovery Boiler C, since these units are required to monitor for opacity;

and for Smelt Tank C and the Lime Kiln, since appropriate surrogate parameters for particulate matter are required to be monitored for these units per 40 CFR Part 63, Subpart MM. Power Boiler #3, controlled with a wet scrubber, will continue to be required to conduct emissions testing for PM once every two qualifying years. These requirements are being carried forward in this renewal.

J. Power Boiler #3

Power Boiler #3 is used to provide steam for the manufacturing process. The boiler was manufactured in 1948 by Combustion Engineering and is licensed at a capacity of 300 MMBtu/hour. Power Boiler #3 is licensed to fire natural gas, non-condensable gases including LVHC and HVLC gases, stripper off-gases (SOG), specification and off-specification oil, and #6 fuel oil. Emissions from Power Boiler #3 exit through Stack 3, which has an inside diameter of 96 inches and above ground level (AGL) height of 362 feet.

Control Equipment

Boiler #3 is equipped with low NO_x burners and flue gas recirculation (FGR) for the control of NO_x and a variable venturi scrubber for the removal of particulate matter and SO₂. The boiler is also equipped with a combustion system designed to ensure the optimal balance between control of NO_x and limitation of CO and VOCs. The FGR system experiences downtime during soot blows due to several potential operational and safety issues, including plugging of the flue orifices with soot fines, thus rendering them inoperable; fouling the series of linkages which modulate air to the burner front, which in turn would hinder burner performance; and the risk of causing burner flame-out, which in turn may cause a boiler Master Fuel Trip.

Flue gas recirculation system downtime shall not be considered pollution control equipment downtime if it does not exceed 5% of boiler operating time per quarter (excluding downtime for soot blows). The Mill need not operate the associated Venturi Scrubber System for those periods of time when Boiler #3 is firing natural gas only. [06-096 CMR 140, BPT]

1. New Source Performance Standards (NSPS)

Due to the date of installation, Power Boiler #3 is not subject to the following NSPS:

40 CFR Part 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators, which applies to fossil fuel fired steam generators with a heat input capacity of 250 MMBtu/hour or more for which construction is commenced after August 17, 1971;

40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units, which applies to electric utility steam generating

units with a heat input capacity of 250 MMBtu/hour or more for which construction is commenced after September 18, 1978.

40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, which applies to steam generating units for which construction, modification, or reconstruction is commenced after June 19, 1984, and which have a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr.

Due to both the date of installation and the heat input capacity, Power Boiler #3 is not subject to the following NSPS:

40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which applies to steam generating units with a heat input capacity between 10 MMBtu/hour and 100 MMBtu/hour and constructed after June 9, 1989.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

Boiler #3 is subject to applicable requirements of 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Rumford Paper Company must comply with the applicable requirements of this regulation no later than January 31, 2016, or no later than the date established per the request for a compliance date extension made in accordance with 40 CFR §63.6(i). [40 CFR §63.7495(b)] Note that if the status of the Final Rule (Boiler MACT Final Rule of January 31, 2013) should change, the compliance date may also change.

However, some notifications must be submitted before the facility is required to comply with the applicable emissions standards, work practice standards, and recordkeeping and reporting requirements. [40 CFR §63.7495(d)]

Tune-Ups

The facility shall complete an initial tune-up of Boiler #3 according to the procedures in §63.7540(a)(10)(i) through (vi) no later than January 31, 2016, or the initial tune-up due date established through the facility's compliance date extension request. [40 CFR §63.7510(e)]

Subsequent tune-ups must be conducted at the frequency specified by Subpart DDDDD and as specified in §63.7540. [40 CFR §63.7510(e)]

Rumford Paper Company shall comply with all applicable monitoring requirements as specified in Table 4 to 40 CFR 63, Subpart DDDDD.

Should the Mill demonstrate compliance through performance testing, emissions testing shall be conducted according to the EPA test methods prescribed in Table 5 to 40 CFR 63, Subpart DDDDD. The 30-day rolling average operating load of Boiler #3 must be maintained such that it does not exceed 110% of the highest hourly average operating load recorded during the

most recent performance test. [#8 of Table 4 to 40 CFR Part 63, Subpart DDDDD]

Emissions Standards

At the specified compliance date established per the NESHAPs regulation 40 CFR Part 63, Subpart DDDDD, Rumford Paper Company shall comply with both the emission limits established by this air emission license and the applicable emission limits for specific pollutants contained in the Subpart DDDDD. For those pollutants which are limited both by the license and by Subpart DDDDD, the facility shall comply with both limits.

3. Emission Limits and Streamlining

Rumford Paper Company accepts streamlining for PM, SO₂, and visible emissions requirements for Boiler #3. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

| Pollutant, Units | Applicable Emission Standards | Origin and Authority | Licensed Emission Limits |
|------------------|---|---|---|
| PM, lb/MMBtu | 0.20 lb/MMBtu | 06-096 CMR 103, Section 2(A)(1) | |
| | 0.03 lb/MMBtu firing natural gas only | BACT (A-214-71-AC-A, 4/10/1998) | 0.03 lb/MMBtu firing natural gas only |
| | 0.08 lb/MMBtu firing oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-70-A-I, 7/30/2003) | 0.05 lb/MMBtu firing any combination of fuels <u>other than</u> 1) natural gas only <u>or</u> 2) oil with any two or more of LVHCs, SOGs, HVLCs |
| | 0.05 lb/MMBtu firing any combination of fuels <u>other than</u> 1) natural gas only <u>or</u> 2) oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-71-O-A, 2/12/1993) | 0.08 lb/MMBtu firing oil with any two or more of LVHCs, SOGs, HVLCs |
| PM, lb/hr | 15.0 lb/hr firing any combination of fuels <u>other than</u> oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-71-O-A, 2/12/1993) | 15.0 lb/hr firing any combination of fuels <u>other than</u> oil with any two or more of LVHCs, SOGs, HVLCs |
| | 24.0 lb/hr firing oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-70-A-I, 7/30/2003) | 24.0 lb/hr firing oil with any two or more of LVHCs, SOGs, HVLCs |

| Pollutant, Units | Applicable Emission Standards | Origin and Authority | Licensed Emission Limits |
|--------------------------------|---|--|---|
| PM ₁₀ , lb/MMBtu | 0.05 lb/MMBtu firing any combination of fuels <u>other than</u> 1) natural gas only <u>or</u> 2) oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-71-O-A, 2/12/1993) | 0.05 lb/MMBtu firing any combination of fuels <u>other than</u> 1) natural gas only <u>or</u> 2) oil with any two or more of LVHCs, SOGs, HVLCs |
| | 0.08 lb/MMBtu firing oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-70-A-I, 7/30/2003) | 0.08 lb/MMBtu firing oil with any two or more of LVHCs, SOGs, HVLCs |
| | 0.03 lb/MMBtu firing natural gas only | BACT/BPT (A-214-71-AC-A, 4/10/1998) | 0.03 lb/MMBtu firing natural gas only |
| PM ₁₀ , lb/hr | 15.0 lb/hr firing any combination of fuels <u>other than</u> oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-71-O-A, 2/12/1993) | 15.0 lb/hr firing any combination of fuels <u>other than</u> oil with any two or more of LVHCs, SOGs, HVLCs |
| | 24.0 lb/hr firing oil with any two or more of LVHCs, SOGs, HVLCs | BACT/BPT (A-214-70-A-I, 7/30/2003) | 24.0 lb/hr firing oil with any two or more of LVHCs, SOGs, HVLCs |
| SO ₂ , lb/MMBtu | 1.92 lb/MMBtu (24-hour period) | 06-096 CMR 106, §4(B) | 0.26 lb/MMBtu firing any fuel combination, 24-hr block average basis |
| | 0.26 lb/MMBtu firing any fuel combination (24-hr block average basis) | BACT/BPT (A-214-71-O-A, 2/12/1993) | |
| SO ₂ , lb/hr | 78.0 lb/hr* (3-hr block average basis) | BACT/BPT (A-214-71-O-A, 2/12/1993) | 78.0 lb/hr*, 3-hr block avg. basis |
| NO _x , lb/MMBtu | 0.40 lb/MMBtu firing any fuel combination (30-day rolling average) | BACT/BPT (A-214-71-O-A, 2/12/1993) | 0.40 lb/MMBtu firing any fuel combination, 30-day rolling average |
| | 0.20 lb/MMBtu firing natural gas only (30-day rolling average) | BACT/BPT (A-214-71-AC-A, 4/10/1998) | 0.20 lb/MMBtu firing natural gas only, 30-day rolling average |
| NO _x , lb/hr | 120.0 lb/hr firing any fuel combination, (30-day rolling average) | BACT/BPT (A-214-71-O-A, 2/12/1993) | 120.0 lb/hr firing any fuel combination, 30-day rolling average |
| CO, lb/MMBtu | 0.20 lb/MMBtu firing any fuel combination | BACT/BPT (A-214-71-O-A, 2/12/1993) | 0.20 lb/MMBtu firing any fuel combination |
| CO, lb/hr | 60.0 lb/hr firing any fuel combination | | 60.0 lb/hr firing any fuel combination |
| VOC, lb/MMBtu | 0.015 lb/MMBtu firing any fuel combination | BACT/BPT (A-214-71-O-A, 2/12/1993) | 0.015 lb/MMBtu firing any fuel combination |
| VOC, lb/hr | 4.5 lb/hr firing any fuel combination | | 4.5 lb/hr firing any fuel combination |

- * The SO₂ emission standard established as BACT/BPT is 78.0 lb/hour with the following caveats:
 - a. When Boiler #6 and/or #7 SO₂ emissions are above 352.8 lb/hour per Section K.3(b) or K.3(d) (footnotes to the table in Section K.3 of this license), SO₂ emissions from the stack for Boiler #3 shall be limited to a total of 60.0 lb/hour on a three-hour block average basis.
 - b. When the Recovery Boiler C SO₂ emissions are above 206.3 lb/hour per Section M.3(c) (footnote to the table in Section M.3 of this license), SO₂ emissions from the stack for Boiler #3 shall be limited to a total of 60.0 lb/hour on a three-hour block average basis.

| Pollutant | Applicable Emission Standards | Origin and Authority | Emission Limits |
|-------------------|---|--|--|
| Visible Emissions | 30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period | 06-096 CMR 101, Section 2(B)(1)(a)(i) | 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period |
| | 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period | BACT/BPT (A-214-71-S-A/R, 9/3/1996) | |

4. Fuel

The Department's 06-096 CMR 106, *Fuel Burning Equipment Particulate Emission Standard* requires that prior to January 1, 2018, any #6 fuel oil fired shall have a maximum sulfur content of 2.0% by weight; and per 38 MRSA §603-A(1) and (2), beginning January 1, 2018, or by the date otherwise stated in the statute, any #6 fuel oil fired shall have a maximum sulfur content of 0.5% by weight. Rumford Paper Company is licensed to fire #6 fuel oil with a sulfur content not to exceed 2.5% by weight, because 06-096 CMR 106(4)(B) allows any source that installs any approved flue gas desulfurization system or other prescribed sulfur removal device to use fuel with a sulfur content in excess of the above specified limitations such that after control, total sulfur dioxide emissions do not exceed 1.92 lbs. of sulfur dioxide per million BTU in any 24-hour period (after November 1, 1991). The facility operates variable throat venturi scrubbers with caustic addition for SO₂ control, which is an approved flue gas desulfurization system.

The BPT SO₂ lb/MMBtu limit established above is lower than the lb/MMBtu limit required by 06-096 CMR 106(4)(B); thus, Rumford Paper Company shall continue to be limited to #6 fuel oil with a sulfur content not to exceed 2.5% by weight. Fuel sulfur content compliance shall be demonstrated by fuel

purchase records documenting the type of fuel delivered and the sulfur content of the fuel.

5. NO_x RACT

NO_x RACT for Power Boiler #3 was determined to be the current control equipment, including the installation of a CEMS which monitors NO_x emissions, a low NO_x burner system, and the boilers flue gas recirculation (FGR) capabilities, and compliance with the licensed emissions limits.

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with Power Boiler #3 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

| <u>Pollutant</u> | <u>Emission Limits</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|----------------------|------------------------------|---|--|
| PM, PM ₁₀ | lb/MMBtu limits | PM: Stack Testing 40 CFR Part 60, App. A, Method 5B | PM: Once every two qualifying operating years, or more frequently as requested by the Dept. |
| | lb/hr limits | PM ₁₀ : Stack Testing 40 CFR Part 60, App. A, Method 5 | PM ₁₀ : As requested |
| SO ₂ | lb/MMBtu limit | SO ₂ CEMS, 24-hour block average basis | Continuously, in accordance with 06-096 CMR 117 |
| | lb/hr limit | SO ₂ CEMS, 3-hour block average basis | |
| NO _x | lb/MMBtu and lb/hr limits | NO _x CEMS, 30-day rolling average basis | |
| CO | lb/MMBtu and lb/hr limits | Stack Testing: 40 CFR Part 60, Appendix A, Method 10 | As requested |
| VOC | lb/MMBtu and lb/hr limits | Stack Testing: 40 CFR Part 60, Appendix A, Method 25 or 25A | As requested |

7. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes fuel use records and fuel analysis records. Periodic monitoring for Boiler #3 shall also include the following, whenever the equipment is operating.

| <u>Parameter</u> | <u>Units</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> |
|----------------------|--------------|-------------------------------|--|
| Fuel oil firing rate | gpm | Fuel flow meter | Continuously, recorded every 15 minutes |
| Fuel oil used | Gallons | Recordkeeping | Monthly and annually |

| <u>Parameter</u> | <u>Units</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> |
|-------------------------|-------------------|-------------------------------|--|
| Fuel oil sulfur content | Percent by weight | Fuel Purchase Records | As fuel is purchased, documented semi-annually |
| Waste oil used | Gallons | Recordkeeping | Monthly and annually |
| Natural gas firing rate | MMscf/hour | Fuel flow meter | Continuously, recorded every 15 minutes |
| Natural gas used | MMscf | Recordkeeping | Monthly and annually |

Based on best management practices and the type of fuel for which the boiler was designed, it is unlikely that Boiler #3 will exceed the licensed limit for CO and VOC; therefore, periodic monitoring by the source for these pollutants is not required. However, neither the EPA nor the Department is precluded from requesting the Mill to perform testing and may take enforcement actions for any identified violations.

8. Parameter Monitoring

Parameter monitoring for Boiler #3 shall consist of the following parameters as specified:

| <u>Parameter</u> | <u>Units of Measure</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> | |
|--|-------------------------|-------------------------------|------------------|------------------|
| | | | <u>Monitor</u> | <u>Record</u> |
| Scrubber pressure drop | in. of water column | Differential pressure monitor | Continuously* | Every 15 minutes |
| Firing duration of LVHCs, HVLCs, and/or SOGs | minutes | Continuous log | | Once per shift |

* *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

9. Continuous Emissions Monitoring Systems (CEMS)

The table below lists the required CEMS for the stack of Power Boiler #3.

| <u>CEMS</u> | <u>Unit of Measurement</u> | <u>Averaging Period</u> | <u>Origin and Authority</u> |
|----------------------|----------------------------|-------------------------|-----------------------------------|
| NO _x CEMS | lb/MMBtu and lb/hr | 30-day rolling average | 06-096 CMR 117 and 06-096 CMR 138 |
| SO ₂ CEMS | lb/MMBtu | 24-hour block average | 06-096 CMR 106 and 06-096 CMR 117 |
| | lb/hr | 3-hour block average | |

K. Cogen Boilers #6 and #7

Cogeneration (Cogen) Boilers #6 and #7 are identical, circulating fluidized bed (CFB) boilers manufactured by Pyropower. Each of the Cogen Boilers is equipped with Coen Model 4 oil burners. These boilers commenced construction in 1986 and started operation in 1990, each with a rated capacity of 610 MMBtu/hour (annual) and 630 MMBtu/hour (24-hour period). Emissions from the two boilers exit through a common stack, which has an inside diameter of 11.5 feet and an above ground level (AGL) height of 411 feet.

Cogen Boilers #6 and #7 are licensed to fire a variety of fuels, including coal, natural gas, HVLCs, LVHCs, SOGs, biomass (including wood waste, Creosote-Treated Wood (CTW), mill waste, wastewater treatment plant sludge, Construction Demolition Debris (CDD), and waste papers), Tire Derived Fuel (TDF), Delayed Petroleum Coke (DPC), lime kiln rejects, and oil (including specification used oil, off-specification used oil, and fuel oil with a sulfur content not to exceed 2.5% by weight). The firing rate capacity of Cogen Boilers #6 and #7 depends on what fuel or fuel mixture is employed.

During the original permitting process, a BACT (Best Available Control Technology) analysis was performed. In 1993, the Rumford Paper Company licensed an increase in the maximum firing rate of Cogen Boilers #6 and #7. At that time, a new BACT analysis was performed and incorporated into air emission license A-214-71-O-A (February 12, 1993).

Control Equipment

Cogen Boilers #6 and #7 each are equipped with circulating fluidized bed (CFB) combustion, limestone injection, and an electrostatic precipitator (ESP) for control of air emissions. Flue gases from Cogen Boilers #6 and #7 pass separately through multi-cyclones and an ESP to reduce particulate matter emissions from each boiler. Each ESP has one chamber and 4 fields per chamber and is powered by 4 Transformer Rectifier (T.R.) Sets. The ESPs have demonstrated compliance with emission limits while operating two of the four fields per ESP. Stack testing has demonstrated compliance in this mode and is considered to meet BACT for operational purposes.

1. New Source Performance Standards (NSPS)

Federal regulation 40 CFR Part 60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and which has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hour. Due to their construction dates, Cogen Boilers #6 and #7 are subject to Subpart Db requirements for PM, SO₂, NO_x, and visible emissions (opacity). The applicable NSPS requirements are addressed in this license.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

As currently licensed and operated, part of the fuel burned in Cogen Boilers #6 and #7 is creosote-treated wood chips (CTW), a fuel identified in 40 CFR Part 241, *Solid Wastes Used as Fuels or Ingredients in Combustion Units*, the Non-Hazardous Secondary Material rule (NHSM), as a solid waste; therefore, these two units are defined under NSPS regulation 40 CFR Part 60, Subpart DDDD, *Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units* (the CISWI regulation), as existing CISWI units and subject to the requirements of 40 CFR Part 60, Subpart DDDD. The facility plans to cease firing the fuel considered waste material. This would cause the units to no longer be subject to CISWI requirements and instead be subject to applicable requirements of 40 CFR Part 63, Subpart DDDDD (Boiler MACT). The Mill is proposing February 6, 2018, as the effective date of the waste-to-fuel switch for Cogen Boilers #6 and #7. Per 40 CFR §63.7495(e), Cogen Boilers #6 and #7 must be in compliance with applicable requirements of the Boiler MACT regulation on the effective date of the switch from waste to fuel. If EPA changes the classification of creosote-treated wood chips under the Final Rule for 40 CFR Part 60, Subpart DDDD, the Final Rule for 40 CFR Part 63, Subpart DDDDD, or the Final Rule for 40 CFR Part 241, the status of the boilers as existing CISWI units and the anticipated compliance date may also change.

40 CFR Part 63, Subpart DDDDD: Major Source Boiler MACT

Under the Boiler MACT regulation, the two cogen boilers are considered existing, fluidized bed units designed to burn biomass/bio-based solids and as units designed to burn solid fuel. Thus, these two units will be subject to the following as of the effective date of the switch from waste to fuel:

a. Emission Limits

At the specific compliance date established per 40 CFR §63.7495, Rumford Paper Company shall comply with the applicable emission limits for specific pollutants in 40 CFR Part 63, Subpart DDDDD, Table 2. For those pollutants which are limited both by this license and by Subpart DDDDD, the facility shall comply with the more stringent limit. [40 CFR §63.7505(a)]

The emission limits shall apply at all times the affected unit is operating, except during periods of startup and shutdown as defined in Subpart DDDDD, during which the source must comply only with the applicable limits of 40 CFR Part 63, Subpart DDDDD, Table 3. [40 CFR Part 63, Subpart DDDDD, §63.7500(f)]

- b. Work Practice Standards and Operating Limits [40 CFR Part 63, Subpart DDDDD, Tables 3, 4, and 8]
- (1) Rumford Paper Company shall conduct an initial tune-up of Cogen Boilers #6 and #7 according to the procedures in 40 CFR §63.7540(a)(10)(i) through (iv) no later than the initial tune-up due date established per 40 CFR §63.7495.
- Subsequent tune-ups must be conducted at the frequency specified by Subpart DDDDD and as specified in §63.7540. [40 CFR §63.7510(e)]
- (2) To demonstrate proper ESP control of PM emissions according to Boiler MACT requirements, the Mill shall maintain visible emissions from the cogen boilers' stack at a level not to exceed 10% opacity (daily block average). Continuous compliance shall be demonstrated according to Table 8, #1, of Subpart DDDDD. [40 CFR Part 63, Subpart DDDDD, Table 4 and Table 8]
- (3) Should the Mill demonstrate compliance through performance testing, the 30-day rolling average operating load of Cogen Boilers #6 and #7 shall be maintained such that it does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test. [#8 of Table 4 to 40 CFR Part 63, Subpart DDDDD]
- c. Performance testing for filterable PM (or TSM), HCl, Hg, and CO shall be conducted according to the specifics contained in Table 5 of 40 CFR Part 63, Subpart DDDDD.
- d. Reporting requirements shall be in accordance with the applicable requirements of Table 9 of Subpart DDDDD.
3. National Emission Standards for Mercury: 40 CFR Part 61

The provisions of federal regulation 40 CFR Part 61, Subpart E, *National Emission Standards for Mercury*, are applicable to stationary sources which incinerate wastewater treatment plant sludge, such as Cogen Boilers #6 and #7. [40 CFR §61.50] Emissions of mercury (Hg) to the atmosphere from the incineration of wastewater treatment plant sludge shall not exceed 7.1 lb per 24-hour period. [40 CFR §61.52(b)] Total emissions of mercury from Cogen Boilers #6 and #7 are approximately 5.6 lb per year (based on stack testing results), significantly lower than the applicable emission limit of Part 61, Subpart E.

As stated in 40 CFR §61.53(d)(1), each owner or operator of a source subject to this standard shall test mercury emissions from that source unless a waiver of emission testing is obtained under 40 CFR §61.13. The section 40 CFR §61.13(i)(1) authorizes the Administrator* to waive the requirement for

emission testing upon written application if, in the Administrator's judgment, the source is meeting the standard. This authority to waive testing requirements is also found in 40 CFR §61.13(h)(1)(iii) if the owner or operator has demonstrated by other means to the Administrator's satisfaction that the source is in compliance with the standard.

* For the purposes of this regulation, the Administrator is the Department.

Because the Mill has demonstrated, using an emission factor derived from stack testing data, that mercury emissions from Cogen Boilers #6 and #7 are substantially below the 40 CFR Part 61 emission limit, the Department has granted the Mill a waiver from the emission testing requirements, as indicated in prior licensing actions. This waiver is still in effect as part of this Part 70 license.

Because mercury emissions from each cogen boiler do not exceed 3.5 lb per 24-hour period, no monitoring of emissions or operations is required under 40 CFR Part 61, Subpart E. [40 CFR §61.55(a)]

4. Emission Limits and Streamlining

Rumford Paper Company accepts streamlining for PM, SO₂, NO_x, and visible emissions requirements for Cogen Boilers #6 and #7. For each boiler, applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

Emission Limits Table

| Pollutant, Units | Applicable Emission Limits per Boiler | Origin and Authority | Licensed Emission Limits per Boiler |
|-------------------------|--|---|--|
| PM, lb/MMBtu | 0.05 to 0.20 lb/MMBtu depending on the fuel type, capacity factors, and permit conditions (except during startups and shutdowns) | 40 CFR Part 60, Subpart Db, §60.43b | 0.03 lb/MMBtu firing any combination of fuel |
| | 0.20 lb/MMBtu | 06-096 CMR 103, Section 2(A)(1) | |
| | 0.03 lb/MMBtu firing any combination of fuel | BACT/BPT (A-214-71-A-A, 7/9/1986) | |
| PM, lb/hour | 18.9 lb/hr firing any fuel combination | BACT/BPT (A-214-71-O-A, 2/12/1993) | 18.9 lb/hr firing any fuel combination |

| Pollutant, Units | Applicable Emission Limits per Boiler | Origin and Authority | Licensed Emission Limits per Boiler |
|--|---|--------------------------------------|---|
| PM ₁₀ , lb/MMBtu | 0.03 lb/MMBtu firing any fuel combination | BACT/BPT (A-214-71-E-A/R, 7/18/1989) | 0.03 lb/MMBtu firing any fuel combination |
| PM ₁₀ , lb/hour | 18.9 lb/hr, any fuel combination | BACT/BPT (A-214-71-O-A, 2/12/1993) | 18.9 lb/hr firing any fuel combination |
| SO ₂ , lb/MMBtu | either one of the following: 0.20 lb/MMBtu or at least 90% reduction of the potential SO ₂ emissions from the coal, TDF, DPC, and oil used and a 1.2 lb/MMBtu emission limit (30-day rolling average basis) | 40 CFR Part 60, Subpart Db, §60.42b | 0.28 lb/MMBtu, ^a any combination of fuel and 0.32 lb/MMBtu, ^a any combination of fuel that includes coal, DPC, and/or TDF, 24-hour block average basis BACT also requires SO ₂ control via use of a circulating limestone bed to remove at least 90% (30-day rolling average basis) of potential SO ₂ emissions. |
| | 1.92 lb/MMBtu, 24-hour period | 06-096 CMR 106 4(B) | |
| | 0.28 lb/MMBtu, ^a any fuel combination excluding coal, DPC, and TDF; 24-hour block avg. | | |
| | 0.32 lb/MMBtu, ^a any fuel combination that includes coal, DPC, and/or TDF, 24-hour block avg. basis | BACT/BPT (A-214-71-E-A/R, 7/18/1989) | |
| | BACT also requires SO ₂ control via use of a circulating limestone bed to remove at least 90% (30-day rolling average basis) of potential SO ₂ emissions. ^f | | |
| SO ₂ , lb/hour | 176.4 lb/hr firing any combination of fuel ^{b,c,d,e} , 3-hour block average | BACT/BPT (A-214-71-O-A, 2/12/1993) | 176.4 lb/hr ^{b,c,d,e} 3-hour block average basis |
| NO _x , lb/MMBtu | 0.3 lb/MMBtu firing liquid fossil fuel or 0.6 lb/MMBtu firing solid fossil fuel, (30-day rolling avg.) | 40 CFR Part 60, Subpart Db, §60.44b | 0.60 lb/MMBtu firing any fuel combination 0.30 lb/MMBtu firing oil only 0.10 lb/MMBtu firing natural gas only 24-hr block average |
| | 0.30 lb/MMBtu firing oil, biomass, or biomass and oil; | 06-096 CMR 138, Section (3)(B) | |
| | 0.38 lb/MMBtu firing biomass and coal; | | |
| | 0.30 lb/MMBtu firing biomass and fuels other than oil and coal | | |
| | 0.60 lb/MMBtu firing any fuel combination, 24-hr block average | BACT/BPT (A-214-71-A-A, 7/9/1986) | |
| | 0.30 lb/MMBtu firing oil only, 24-hr block average | BACT/BPT (A-214-71-AC-A, 4/10/1998) | |
| 0.10 lb/MMBtu firing natural gas only, 24-hr block average | | | |

| <u>Pollutant, Units</u> | <u>Applicable Emission Limits per Boiler</u> | <u>Origin and Authority</u> | <u>Licensed Emission Limits per Boiler</u> |
|-----------------------------|--|--|--|
| NO _x , lb/hr | 378.0 lb/hr for any fuel combination, 24-hour block average | BACT/BPT (A-214-71-O-A, 2/12/1993) | 378.0 lb/hr for any fuel combination, 24-hour block average |
| CO, lb/MMBtu | 0.15 lb/MMBtu firing coal, DPC, or TDF | BACT/BPT (A-214-71-A-A, 7/9/1986) | 0.15 lb/MMBtu firing coal, DPC, or TDF |
| | 0.03 lb/MMBtu firing oil only | | 0.50 lb/MMBtu firing biomass or natural gas |
| | 0.50 lb/MMBtu firing biomass or natural gas | BACT/BPT (A-214-71-AC-A, 4/10/1998) for natural gas | 0.03 lb/MMBtu firing oil only |
| CO, lb/hr | 248.85 lb/hr firing any fuel combination | BACT/BPT (A-214-71-O-A, 2/12/1993) | 248.85 lb/hr firing any fuel combination |
| VOC, lb/MMBtu | 0.008 lb/MMBtu firing any fuel combination | BACT/BPT (A-214-71-O-A, 2/12/1993) | 0.008 lb/MMBtu firing any fuel combination |
| VOC, lb/hr | 5.04 lb/hr firing any fuel combination | BACT/BPT (A-214-71-O-A, 2/12/1993) | 5.04 lb/hr, firing any fuel combination |
| Visible Emissions (opacity) | 30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period | 06-096 CMR 101, §2(B)(1)(a)(i) | 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period of not more than 27% opacity. |
| | 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period of not more than 27% opacity | CFR Part 60, Subpart Db BACT/BPT (A-214-71-A-A, 7/9/1986) | |
| Visible Emissions (opacity) | As of the effective date of 40 CFR Part 63, Subpart DDDDD applicability for these boilers, visible emissions shall not exceed the applicable standard as specified in Subpart DDDDD, demonstrated according to the applicable compliance demonstration method as specified in Subpart DDDDD. | 40 CFR Part 63, Subpart DDDDD, Tables 4 and 8 | As of the effective date of 40 CFR Part 63, Subpart DDDDD applicability for these boilers, visible emissions shall not exceed the applicable standard as specified in Subpart DDDDD, demonstrated according to the applicable compliance demonstration method as specified in Subpart DDDDD. |

- a. When Cogen Boiler #6 and/or #7 are/is firing only fuel oil or performing a gravimetric calibration, the monitored SO₂ lb/MMBtu emissions during that period, expected to be greater than during operation firing other fuels, shall not be included in determining the 24-hour block average SO₂ lb/MMBtu emission rate. The Mill shall keep records of the dates and times of all gravimetric calibrations and the dates and time of any firing of only fuel oil in Cogen Boilers #6 and #7.

- b. When Cogen Boiler #6 and/or Cogen Boiler #7 is firing only fuel oil or performing a gravimetric calibration, SO₂ emissions from the common stack for Cogen Boilers #6 and #7 shall be limited to a total of 500.0 lb/hr on a three-hour block average basis. The Mill shall keep records of the dates and times of all gravimetric calibrations and the date and time of any firing of only fuel oil in Cogen Boilers #6 and #7.
- c. When Recovery Boiler C SO₂ emissions are above 206.3 lb/hour per Section M.3(c) (footnote to the table in Section M.3 of this license), SO₂ emissions from the common stack for Cogen Boilers #6 and #7 shall be limited to a total of 250.0 lb/hr on a three-hour block average basis.
- d. In addition to the limitations listed above, the Mill shall be determined to be in compliance when Cogen Boilers #6 and #7 exceed the 176.4 lb/hr (352.8 lb/hr combined) SO₂ limit provided all of the following conditions are met:
 - i. Either Cogen Boiler #6 or #7 is firing SOGs, LVHCs, HVLCs, or any combination thereof;
 - ii. SO₂ emissions from Cogen Boilers #6 and #7 combined do not exceed 500.0 lb/hr on a 3-hour block average basis;
 - iii. SO₂ emissions from Recovery Boiler C do not exceed 206.3 lb/hr on a 3-hour block average basis;
 - iv. SO₂ emissions from Boiler #3 do not exceed 60 lb/hr on a 3-hour average basis;
 - v. The Mill shall report the dates, times, and average SO₂ emissions for each 3-hour block when Cogen Boilers #6 and #7 utilize these alternative limits.
- e. The alternative SO₂ limits in (d) above shall not account for more than 4.0 tons/year of actual SO₂ emissions.

[A-214-77-8-M (August 24, 2009) & A-214-70-A-I (October 6, 2009)]

- f. The original BACT determination required the use of a circulating limestone bed to remove at least 90% of potential SO₂ emissions from the coal, TDF, DPC, and oil components of the fuel fired in the two Cogen Boilers. Although the sulfur input from biomass and sludge fuels is not significant, the incineration of pulping gases in Cogen Boilers #6 and #7 introduce a significant loading of TRS compounds, which are oxidized in the boilers to form SO₂.

To avoid calculating inaccurate or misleading results, the Rumford Mill calculates percent reduction of potential SO₂ emissions from *all* of the fuels input to the Cogen Boilers. The total sulfur input to the boilers is calculated using the sulfur input from each fuel (calculated from sulfur analytical data for each fuel) added to the sulfur input from each pulping gas stream (determined from design information). The SO₂ output is measured by a

CEMS in the combined stack. From this input and output data, the total SO₂ removal efficiency is calculated and monitored on a 30-day rolling average.

5. Startups and Shutdowns: PM and Opacity Emissions

At all times, including periods of startup, shutdown, and malfunction, Rumford Paper Company must operate and maintain Cogen Boilers #6 and #7 and the associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires Rumford Paper Company to reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the Mill to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices. [40 CFR Part 63, §63.6]

For the purposes of this license (except for the standards and requirements of 40 CFR Part 63, Subpart DDDDD, which are subject to specific definitions for these terms), *Startup* and *Shutdown* shall be defined as follows: [06-096 CMR 140, BPT]

Startup includes the operational activities preceding and including the first fire of natural gas or fuel oil until the boiler has reached its rated temperature and pressure, is firing only solid fuel, and is sustaining over 75% rated load.

Cold Startup occurs after a boiler has been cooled from its rated operating pressure and temperature to a pressure of less than 50 psig. Typically, this occurs when a boiler has been taken offline for maintenance to perform a repair caused by a pressure part failure. A cold startup may require up to 36 hours for the boiler be brought online in a methodical manner to allow the metals and refractory to expand in a uniform manner to prevent mechanical damage and/or thermal shock to the boiler. The boiler may be started up without bed material if performing a refractory cure or with cold bed material as a result of being offline. The cold startup ends when the boiler has reached its rated temperature and pressure, is firing only solid fuel, and is sustaining over 75% rated load.

Shutdown means the operational activities leading to the cessation of operation of a boiler. Shutdown includes the process of decreasing boiler firing rate, decreasing solid fuel firing, and removing bed material until a boiler ceases operation with a Master Fuel Trip (MFT).

Process Explanation

Characteristics inherent to circulating fluidized bed (CFB) boilers can cause emissions during startup or shutdown operations to exceed the visible emissions standards applicable during steady state operation. CFBs require bed material to be circulated continuously in the boiler for proper combustion and heat transfer. During startup of these units, a significant amount of time is spent loading the bed material to facilitate a smooth startup. At the same time, oil is fired in the boilers to raise the combustion temperature until combustion of solid fuels can be sustained without oil firing. In addition, ESPs characteristically do not function at maximum efficiency during the startup process due to flue gas characteristics.

During a planned shutdown, the bed material must remain in circulation for a period of time while it is being removed. Combustion of fuel is not occurring during this period. As a result of these CFB characteristics, opacity events are experienced which are subject to 06-096 CMR 101 (2)(B)(5) standards.

National Fire Protection Association (NFPA) 85 Boiler and Combustion Systems Hazards Code (Section 7.6.2.5.4.3 of NFPA 85, edition 2011) requires that the ESP trip on interlock with a boiler Master Fuel Trip (MFT), which may result in unavoidable opacity exceedances. The code requirement is intended to prevent ignition of potentially explosive gases that may be present in the precipitator chamber following a boiler trip; therefore, when an affected unit experiences a MFT that is not the result of operator error or poor maintenance, it is a result of a malfunction as defined in 40 CFR §60.2. Thus, excess opacity during such events are not violations of the opacity standard set forth in 40 CFR Part 60, §60.43b(f), according to 40 CFR Part 60, §60.43b(g).

Through air dispersion modeling, the Mill demonstrated that increased particulate emission rates from Cogen Boilers #6 and #7 did not violate ambient air quality standards for periods of time which most closely simulate startup and shutdown conditions. In addition, past ambient monitoring data collected from the area showed that short term opacity events from Cogen Boilers #6 and #7 did not have an effect on the short term monitored pollutant impact concentrations of the same time periods. Thus, this Air Emission License requires compliance with alternate opacity limits and surrogate work practice standards and corresponding parameter monitoring requirements for a specified period of time for each boiler during a startup or shutdown event. The additional parameter monitoring requirements shall be used to document operation of a boiler during a period of startup or shutdown for the other boiler. These additional parameter monitoring requirements are specified in the "Parameter Monitoring" section for Cogen Boilers #6 and #7 in these Findings of Fact.

Alternate Limits

During periods of startup or shutdown, visible emissions shall comply with the opacity limits and alternate compliance methods specified in the following paragraphs.

- (1) When one of the two Cogen Boilers is in "normal" operation and the other has completed shutdown operations and is available for internal maintenance, visible emissions from the combined stack shall not exceed 60% opacity on a six-minute block average basis. The Mill shall continue to operate the COMS and maintain records of opacity of emissions from the combined stack.
- (2) The identified period of alternate opacity compliance for Cogen Boiler #6 and/or #7 shall comply with each of the following:
 - (a) Cold Startups shall not exceed a maximum period of 36 hours per boiler;
 - (b) All other startups or shutdowns shall not exceed a maximum period of 24 hours per boiler; and
 - (c) The period of alternate opacity compliance shall begin upon the first six-minute value that is recorded to be in excess of 20% opacity on a six-minute block average basis.
- (3) When only one Cogen Boiler is in the process of startup or shutdown and the other is under "normal" operation, the Mill shall continuously monitor and record once every half-hour the following surrogate parameters indicative of boiler performance for the Cogen Boiler under "normal" operation:
 - (a) Boiler air/fuel ratio
 - (b) Boiler combustion O₂ trim control
 - (c) The operating ESP TR Set voltage and amperage

During a startup or a shutdown period, operation of the other boiler within the normal range of variation for the above parameters shall constitute compliance with the visible emission requirements of this license. Upon request from the Department, the Mill shall submit copies of the records for these parameters.

6. Fuel

According to 38 MRSA §603-A(2)(A)(1) and (2), prior to January 1, 2018, or by the date otherwise stated in this statute, the #6 fuel oil fired in Cogen Boilers #6 and #7 shall have a maximum sulfur content of 2.0% by weight; and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire #6 fuel oil with a maximum sulfur content limit of 0.5% by weight. This Statute and 06-096 CMR 106, *Low Sulfur Fuel*, require that no person shall burn solid fossil fuel containing more than 0.96 pounds of sulfur

per million Btu, calculated as a calendar quarter average. As specified in 38 MRSA §603-A(4) and in 06-096 CMR 106(4)(B), any source that installs any approved flue gas desulfurization system or other prescribed sulfur removal device shall be permitted to use fuel with a sulfur content in excess of the above specified limitations such that after control, total SO₂ emissions do not exceed 1.92 lb/MMBtu in any 24-hour period. Rumford Paper Company operates circulating limestone beds in Cogen Boilers #6 and #7 for SO₂ control, which are approved flue gas desulfurization systems.

The streamlined BPT SO₂ lb/MMBtu limit established in the Emission Limits Table for Cogen Boilers #6 and #7 is lower than the lb/MMBtu limit required by Statute and 06-096 CMR 106(4)(B); thus, Rumford Paper Company shall continue to be licensed to fire fuel in these two boilers with sulfur content in excess of the limitations specified in the Statute and Rule cited above, providing that the approved flue gas desulfurization system is operated and SO₂ emissions do not exceed the applicable lb/MMBtu limit.

7. NO_x RACT

The circulating fluidized bed boiler design incorporates cyclonic mechanics to promote completeness of combustion at a relatively low combustion temperature, thus qualifying as an inherently low NO_x system. These mechanics minimize emissions of nitrogen oxides, carbon monoxide, VOCs, and particulate matter. The operation of NO_x CEMS along with the circulating fluidized bed technology were determined to meet the definition of an equivalent low NO_x control strategy as required by 06-096 CMR 138 and were determined to be BACT for Cogen Boilers #6 and #7. The Department has determined that the current controls and emission limits on Cogen Boilers #6 and #7 meet NO_x RACT.

8. Emission Limit Compliance Methods

Compliance with the emission limits associated with Cogen Boilers #6 and #7 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department for each boiler.

| <u>Pollutant</u> | <u>Emission Limits</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|----------------------|---------------------------|---|--|
| PM, PM ₁₀ | lb/MMBtu and lb/hr limits | PM: Stack Testing 40 CFR Part 60, App. A, Method 5 PM ₁₀ : Stack Testing 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A | <u>PM</u> : Once every five years, or more frequently upon Department request <u>PM₁₀</u> : As requested |
| SO ₂ | lb/MMBtu limits | SO ₂ CEMS, 24-hour block average basis | Continuous, in accordance with 40 CFR Part 60, |

| <u>Pollutant</u> | <u>Emission Limits</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|-------------------|---------------------------|---|---|
| | lb/hr limits | SO ₂ CEMS, 3-hour block average basis | App. B |
| NO _x | lb/MMBtu limits | NO _x CEMS, 24-hour block average basis | Continuous, in accordance with 40 CFR Part 60, Appendix B |
| | lb/hr limits | NO _x CEMS, 24-hour block average basis | |
| CO | lb/MMBtu and lb/hr limits | Stack Testing: 40 CFR Part 60, Appendix A, Method 10 | As requested |
| VOC | lb/MMBtu and lb/hr limits | Stack Testing: 40 CFR Part 60, App. A, Method 25 or 25A | As requested |
| Visible Emissions | Opacity limits | COMS, six-minute block average basis | Continuous, in accordance with 40 CFR Part 60, Appendix B |

9. Periodic Monitoring

Rumford Paper Company shall monitor and record parameters for Cogen Boilers #6 and #7 and their associated air pollution control equipment, as indicated in the following tables, whenever the equipment is operating.

| <u>Cogen Boilers #6 and #7</u> | | | |
|--------------------------------|-------------------|-------------------------------------|--|
| <u>Parameter</u> | <u>Units</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> |
| Fuel oil firing rate | gpm | Fuel flow meter | Continuously, record daily average |
| Fuel oil used | Gallons | Recordkeeping | Monthly and annually |
| Fuel oil sulfur content | Percent by weight | Fuel purchase records from supplier | As fuel is purchased, documented semi-annually |
| Waste oil used | Gallons | Recordkeeping | Monthly and annually |
| Solid fuel firing rate | MMBtu/hour | Fuel measurement devices | Continuously, record daily average |
| Solid fuels used | Tons | Recordkeeping | Monthly and annually |
| Natural gas firing rate | MMscf/hour | Fuel flow meter | Continuously, record daily average |
| Natural gas used | MMscf | Recordkeeping | Monthly and annually |
| Operating time | Hours | Boiler control system | Monthly and annually |

| <u>ESP on Cogen Boilers #6 and #7</u> | | | | |
|---------------------------------------|-------------------------|-------------------------------|------------------|-----------------|
| <u>Parameter</u> | <u>Units of Measure</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> | |
| | | | <u>Monitor</u> | <u>Record</u> |
| ESP Voltage | volts | volt meter | Continuously | every half hour |
| ESP Amperage | amps | amp meter | | |

For the purposes of the two tables above, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

Based on best management practices and the type of fuel for which the boilers were designed, it is unlikely that Cogen Boilers #6 and #7 will exceed the emission limits for CO and VOC. Therefore, periodic monitoring by the source for these pollutants is not required. However, neither the EPA nor the State is precluded from requesting the Mill to perform testing and may take enforcement action for any violations discovered.

10. Parameter Monitoring

In the event that only one of the two cogen boilers is in the process of startup or shutdown and the other is under "normal" operation, the Mill shall monitor and record the following additional parameter values indicative of boiler performance:

| Cogen Boilers #6 and #7 | | | | |
|---|------------------|------------------------|--------------|-----------------|
| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
| | | | Monitor | Record |
| Boiler air/fuel ratio | Air/fuel ratio | Boiler control system | Continuously | every half hour |
| Boiler combustion O ₂ trim control | Oxygen content | Boiler control system | Continuously | every half hour |

For the purposes of the two tables above, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

11. CEMS and COMS

The table below lists the required continuous emission monitoring systems (CEMS) and the continuous opacity monitoring systems (COMS) for Cogen Boilers #6 and #7. All required CEMS and COMS shall be operated to record accurate data in the units of the applicable standard during all source operating times, except for periods when the CEMS or COMS is subject to established quality assurance and quality control procedures or during periods of unavoidable malfunction. Any emissions data collected during periods when an emissions unit is not operating shall not be used in determining compliance with any emission limit. [06-096 CMR 117(3)(A)]

| Continuous Monitor | Units | Averaging Period | Origin and Authority |
|----------------------|----------|------------------------|------------------------|
| NO _x CEMS | lb/MMBtu | 24-hour block average | 06-096 CMR 117 and 138 |
| | lb/hr | 24-hour block average | |
| SO ₂ CEMS | lb/MMBtu | 24-hour block average | 06-096 CMR 106 and 117 |
| | lb/hr | 3-hour block average | |
| Opacity COMS | % | 6-minute block average | 06-096 CMR 117 |

L. Lime Kiln

Rumford Paper Company installed the Lime Kiln in 1989. In 2008, the unit was modified to support firing #6 fuel oil or natural gas, either alone or together, in the Lime Kiln, which supported the existing kiln throughput capacity. The project included replacing the then existing oil burner with a burner system designed for a heat input capacity of 100 MMBtu/hour for oil and 110 MMBtu/hour for natural gas. Since natural gas generates a greater flue gas volume than oil, the firing rate for natural gas must be greater to support the same process heating and process throughput capacity.

The fuel oil fired in the Lime Kiln has a maximum sulfur content of 2.0% by weight when there is no lime within the kiln and 2.5% by weight when there is lime within the kiln. With lime in the Lime Kiln, chemical reactions occur which remove sulfur dioxide; therefore, this qualifies as a sulfur dioxide removal device and permits the fuel to have a sulfur content in excess of the 2.0% by weight limitation in 06-096 CMR 106 per Section (4)(B). Temperatures achieved in the kiln from firing #6 fuel oil and/or natural gas cause recalcination of the lime (the chemical conversion of calcium carbonate to calcium oxide). In addition, the kiln can fire low-volume, high concentrations of non-condensable gases (LVHCs) generated by the pulping process. Lime Kiln emissions exhaust to a 263 foot AGL stack with a 60-inch diameter.

Control Equipment

Emissions from the Lime Kiln are controlled by a wet scrubber. The lime mud is also an effective media to scrub SO₂ emissions generated from the incineration of Total Reduced Sulfur (TRS) compounds.

1. New Source Performance Standards (NSPS)

Due to its date of construction, the Lime Kiln is subject to 40 CFR Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills* for lime kilns constructed after September 24, 1976.

Subpart BB establishes standards for PM and TRS emissions, which are addressed in this license. Subpart BB also establishes requirements for reporting and for monitoring of emissions and operations. This subpart requires the operation and maintenance of a COMS and CEMS for TRS and O₂. The supply pressure of the scrubbing liquid to the scrubber must also be continuously monitored and recorded once per shift. For the purpose of reports required under 40 CFR §60.7(c), the Mill shall report semiannually periods of excess TRS emissions from the Lime Kiln for all 12-hour average TRS concentrations above 8 ppm by volume. [40 CFR Part 60, Subpart BB §60.284]

Note: The Lime Kiln scrubber is not a venturi scrubber; thus, the measure of differential pressure across the scrubber has no meaningful correlation to scrubber performance. Prior to the issuance of the facility's initial Part 70 license, the Mill requested and was granted an alternative monitoring determination not requiring the monitoring of differential pressure across the scrubber. In 2004, the Mill made a similar alternative monitoring request to EPA, as allowed under 40 CFR Part 63, Subpart MM, to drop the requirement under Subpart MM to monitor differential pressure. The request was granted by EPA on April 16, 2004.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

The Lime Kiln is subject to the requirements of *NESHAPs for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills*, 40 CFR Part 63, Subpart MM. The requirements of Subpart MM are addressed in this license.

3. Emission Limits and Streamlining

Rumford Paper Company accepts streamlining for PM and TRS emissions requirements for the Lime Kiln. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

| Pollutant, Units | Applicable Emission Standards | Origin and Authority | Licensed Emission Limits |
|--------------------------|--|--|--|
| PM, gr/dscf | 0.15 g/dscm (0.066 gr/dscf) @ 10% O ₂ firing natural gas 0.30 g/dscm (0.13 gr/dscf) @ 10% O ₂ firing fuel oil | 40 CFR Part 60, Subpart BB, §60.282 | 0.064 gr/dscf (0.15 g/dscm) @ 10% O ₂ |
| | 0.064 gr/dscf (0.15 g/dscm) @ 10% O ₂ | 40 CFR Part 63, Subpart MM, §63.862 and BACT (A-214-77-7-A, 9/2/2008) | |
| PM, lb/hr | 24.0 lb/hr | BACT (A-214-77-7-A, 9/2/2008) | 24.0 lb/hr |
| PM, lb/ADTP | 1 lb/ADTP (2-hr sampling period) | 06-096 CMR 105(2) | |
| PM ₁₀ , lb/hr | 24.0 lb/hr | BACT (A-214-77-7-A, 9/2/2008) | 24.0 lb/hr |

| <u>Pollutant, Units</u> | <u>Applicable Emission Standards</u> | <u>Origin and Authority</u> | <u>Licensed Emission Limits</u> |
|----------------------------|--|--|---|
| SO ₂ , lb/MMBtu | 1.92 lb/MMBtu (firing 2.5% S fuel oil and using an approved flue gas desulfurization system) | 06-096 CMR 106, Section 4(B) | 23.0 lb/hr |
| SO ₂ , lb/hr | 23.0 lb/hr | BACT (A-214-77-7-A, 9/2/2008) | |
| NO _x , ppm | 120 ppmv (wet) @ 10% O ₂ (1-hour block average basis) | 06-096 CMR 138, Section (3)(E) | 120 ppmv (wet) @ 10% O ₂ (1-hour block average basis) |
| NO _x , lb/hr | 52.0 lb/hr | BACT (A-214-77-7-A, 9/2/2008) | 52.0 lb/hr |
| CO, lb/hr | 39.0 lb/hr | BACT (A-214-77-7-A, 9/2/2008) | 39.0 lb/hr |
| VOC, lb/hr | 2.0 lb/hr | BACT (A-214-77-7-A, 9/2/2008) | 2.0 lb/hr |
| TRS, ppm | 20 ppmv on a dry basis, @ 10% O ₂ (12-hr block avg.) | 06-096 CMR 124, Section (3)(K) | 8 ppmv on a dry basis, @ 10% O ₂ (12-hr block average basis) |
| | 8 ppmv on a dry basis, @ 10% O ₂ (12-hr block average basis) | 40 CFR Part 60, Subpart BB §60.283(a)(5) and BACT (A-214-77-7-A, 9/2/2008) | |

4. NO_x RACT

The Lime Kiln NO_x RACT is compliance with the applicable 06-096 CMR 138 limit, as identified in the table above, and demonstration of such by emissions testing in accordance with 40 CFR, Part 60, Appendix A upon request of the Department. [A-214-70-I-A (October 6, 2009)]

5. VOC RACT

The Mill is required under 06-096 CMR 124 to maintain adequate combustion conditions within the Lime Kiln to meet the specified TRS emission limit, which conditions also control VOC emissions from the Lime Kiln. This was determined to meet VOC RACT requirements.

6. Emission Limit Compliance Methods [06-096 CMR 140, BPT]

Compliance with the emission limits associated with the Lime Kiln shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

| <u>Pollutant</u> | <u>Emission Limit</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|------------------|--------------------------|---|---------------------------------|
| PM | gr/dscf and lb/hr limits | Stack Testing: 40 CFR Part 60, Appendix A, Method 5 | Once every five calendar years* |

| Pollutant | Emission Limit | Compliance Method | Frequency |
|------------------|----------------------|--|--------------------------------|
| PM ₁₀ | lb/hr limit | Stack Testing: 40 CFR Part 60, Appendix A, Method 5 | Upon request by the Department |
| SO ₂ | lb/hr limit | Stack Testing: 40 CFR Part 60, Appendix A, Method 6 | Upon request by the Department |
| NO _x | ppm and lb/hr limits | Stack Testing : 40 CFR, Part 60, Appendix A, Method 7 | Upon request by the Department |
| CO | lb/hr limit | Stack Testing : 40 CFR, Part 60, Appendix A, Method 10 | Upon request by the Department |
| VOC | lb/hr limit | Stack Testing : 40 CFR, Part 60, Appendix A, Method 25 | Upon request by the Department |

* In accordance with 38 M.R.S.A. §589, §§2, if visible emissions, operating parameters, federal requirements, or other information indicates the source may be operating out of compliance, additional testing may be required upon request of the Department.

| Pollutant | Emission Limit | Compliance Method | Frequency |
|-----------|----------------|---|---|
| TRS | ppm limit | CEMS – monitoring TRS concentration on a dry basis and % O ₂ by volume on a dry basis of emissions | Calculate and record daily: 12-hour block average TRS @ 10% O ₂ and O ₂ concentrations for the two consecutive periods of each operating day, determined as the arithmetic mean of the appropriate 12 contiguous, one-hour averages from the CEMS |

7. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping that includes fuel use records and fuel analysis records. Periodic monitoring for the Lime Kiln shall also consist of the following:

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|-----------------------|------------------|------------------------|--------------|--------|
| | | | Monitor | Record |
| LVHCs firing duration | Hours | Continuous Log | Continuously | Daily |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

8. Parameter Monitoring

The Mill shall operate and record data from the following monitors associated with the Lime Kiln and its control equipment whenever the Lime Kiln is operating. The Mill was granted an alternate monitoring determination to monitor the scrubbing media flow rate and scrubbing media supply pressure in lieu of the pressure drop across the scrubber. When applicable, the parameter monitors shall be operated in accordance with the procedures and requirements specified in 40 CFR Part 60, Subpart BB and 40 CFR Part 63, Subpart MM.

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|------------------|------------------------|--------------|-----------------------|
| | | | Monitor | Record |
| As required by 40 CFR Part 63, Subpart MM §63.864: | | | | |
| Scrubber media flow rate | gpm | Flow meter | Continuously | Once every 15 minutes |
| As required by 40 CFR Part 60, Subpart BB §60.284(b)(2)(ii): | | | | |
| Scrubbing liquid supply pressure to the scrubber | psi | Pressure gauge | Continuously | Once every 15 minutes |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

9. Continuous Emissions Monitoring Systems (CEMS)

Rumford Paper Company shall operate and maintain the following CEMS on emissions from the Lime Kiln:

| Continuous Monitor | Unit of Measurement | Monitor and Record | Origin and Authority |
|--------------------|---|--------------------|--|
| TRS CEMS | ppm by volume on a dry basis, corrected to 10% O ₂ | Continuously | 40 CFR Part 60, Subpart BB §60.284 and 06-096 CMR 124(4) |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

M. Recovery Boiler C

Rumford Paper Company installed Recovery Boiler C (RBC) in 1981. RBC is a Babcock and Wilcox low odor design boiler used by the Mill to recover pulping chemicals and produce steam. The unit has the capacity to fire 4.4 million pounds (MMlb) of dry black liquor solids (BLS) per day or 759 MMBtu/hour of fuel oil. The recovery boiler is used to recover pulping chemicals and produce steam. Emissions exit through a 290 foot AGL stack.

RBC's primary fuel is black liquor, the liquid from the digesters after pulping of wood chips. In RBC, inorganic chemicals in the black liquor are recovered in molten form, and organic constituents of the black liquor are combusted, supplying heat for steam generation. As an auxiliary fuel in RBC, the Mill fires fuel oil with a maximum sulfur content of 2.0% by weight when there is no smelt within the boiler, and 2.5% by weight when there is smelt within the boiler. When smelt is present in the boiler, chemical reactions occur which remove sulfur dioxide, qualifying this as a sulfur dioxide removal device and justifying the firing of fuel with a sulfur content greater than the 2.0% by weight limitation in 06-096 CMR 106, Section (4)(B). Typically, oil is used only during startups, shutdowns, and to stabilize boiler operation. RBC is also licensed to fire natural gas and black liquor soap.

Control Equipment

The particulate emissions from RBC are controlled by the operation of a S. F. Flakt Electrostatic Precipitator (ESP). The ESP is a rigid frame, dry bottom, European design. The ESP has two chambers with four fields per chamber and is powered by eight Transformer Rectifier (TR) sets. The Mill has demonstrated compliance during periods of precipitator maintenance at reduced boiler load with only one of the two chambers in operation.

1. New Source Performance Standards (NSPS)

RBC is subject to 40 CFR Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills* for recovery boilers manufactured after September 24, 1976. Subpart BB establishes standards for PM and TRS emissions. These requirements are addressed in this license.

Requirements of federal regulation 40 CFR Part 60, Subpart D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators*, apply to each fossil-fuel fired and wood-residue-fired steam generating unit capable of firing fossil fuel at a heat input rate of more than 250 MMBtu/hour, per 40 CFR §60.40(a)(2). In 1990, the USEPA provided an applicability determination that Subpart D does not apply to a kraft recovery boiler, provided that the annual capacity factor for fossil fuel is less than 10%. Rumford Paper Company is limited per license Condition (19) to an annual capacity of less than 10% firing fossil fuels; thus, RBC is not subject to the requirements of 40 CFR Part 60, Subpart D.

Due to its construction date, RBC is not subject to 40 CFR Part 60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units* which commenced construction after June 19, 1984.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

RBC is subject to the requirements of *NESHAPs for Chemical Recovery Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills*, 40

CFR Part 63, Subpart MM. This Subpart establishes a standard for PM emissions which is addressed in this license.

RBC is exempt from Subpart DDDDD, *NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters*, per §63.7491(f) of this Subpart, because recovery boilers are subject to applicable requirements of 40 CFR Part 63, Subpart MM.

3. Emission Limits and Streamlining

Rumford Paper Company accepts streamlining for PM, SO₂, and visible emissions requirements for RBC. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented below. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

| Pollutant, Units | Applicable Emission Standards | Origin and Authority | Licensed Emission Limits |
|--------------------------|--|--|--|
| PM, gr/dscf | 0.044 gr/dscf @ 8% O ₂ | 40 CFR Part 60, Subpart BB, §60.282(a)(1)(i) 40 CFR Part 63, Subpart MM, §63.862(a)(i)(A) | 0.044 gr/dscf @ 8% O ₂ |
| PM, lb/ADTP | 4 lb/ADTP, 2-hr sampling period | 06-096 CMR 105(2) | 86.7 lb/hr |
| PM, lb/hr | 86.7 lb/hr | BACT/BPT (A-214-71-E-A/R, 7/18/1989) | |
| PM ₁₀ , lb/hr | 65.0 lb/hr | BACT/BPT (A-214-71-E-A/R, 7/18/1989) | 65.0 lb/hr |
| SO ₂ , ppm | 100 ppmv ^a (30-day rolling avg.) | BACT/BPT (A-214-71-S-A/R, 9/3/1996) | 100 ppmv ^a , 30-day rolling average |
| SO ₂ , lb/hr | 309.6 lb/hr (0.16 gr/scf) | EPA-issued PSD Permit 003-107 ME 01 (April 16, 1979) | 206.3 lb/hr ^{b, c} 3-hr block average |
| | 206.3 lb/hr ^{b, c} (3-hour block average) | BACT/BPT (A-214-71-A-A, 7/9/1986) | |
| NO _x , ppm | 110 ppmvd @ 8% O ₂ , 24-hr block average | 06-096 CMR 138 (3)(C)(1) | 110 ppmvd @ 8% O ₂ , 24-hr block average |
| NO _x , lb/hr | 215.0 lb/hr, 24-hr block average | BACT/BPT (A-214-71-AN-A, 4/9/2002) | 215.0 lb/hr, 24-hr block average |
| CO, lb/hr | 222.0 lb/hr | BACT/BPT (A-214-71-E-A/R, 7/18/1989) | 222.0 lb/hr |
| VOC, lb/hr | 3.7 lb/hr | | 3.7 lb/hr |
| TRS, ppm ^d | 5 ppmv @ 8% O ₂ on a dry basis (12-hr block average) | 40 CFR Part 60, Subpart BB, §60.283(a)(2) and 06-096 CMR 124(3)(H) | 5 ppmvd @ 8% O ₂ , 12-hr block average |

| Pollutant, Units | Applicable Emission Standards | Origin and Authority | Licensed Emission Limits |
|--------------------------------|--|--|--|
| Visible Emissions ^c | 35% opacity | 40 CFR Part 60, Subpart BB, §60.282(a)(1)(ii) | 30% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period |
| | 30% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period | 06-096 CMR 101, §2(B)(2) and BACT/BPT (A-214-71-E-A/R, 7/18/1989) | |

- a. When RBC is firing only fuel oil, the monitored SO₂ ppmv emissions during that period shall not be included in determining the 30-day rolling average SO₂ ppmv emission rate.
- b. When Cogen Boiler #6 and/or Cogen Boiler #7 is/are utilizing the alternate limits per Section K.3(b) or K.3(d) of this license, RBC shall be limited to 206.3 lb/hr of SO₂ emissions on a three-hour block average basis.
- c. As an alternative to the 206.3 lb/hr SO₂ emission limit, the Mill shall be considered in compliance when RBC exceeds the 206.3 lb/hr limit if all of the following requirements are met:
 - i. SO₂ emissions from RBC shall not exceed 650.0 lb/hr on a time-weighted 3-hour block average basis.
 - ii. SO₂ emissions from the Cogen Boilers #6 and #7 combined shall not exceed 250.0 lb/hr on a time-weighted 3-hour block average basis.
 - iii. SO₂ emissions from the Boiler #3 shall not exceed 60.0 lb/hr on a time-weighted 3-hour block average basis.
 - iv. The Mill shall not utilize these limits to demonstrate compliance for more than 300 hours in any calendar year and shall report the dates, times, and number of three-hour blocks when these alternate limits were utilized each quarter.
- d. Two 12-hour block averages of TRS emissions in a quarter which exceed either license limits or the emission standards of Section 3(H) of 06-096 CMR 124 shall not be considered violations of 06-096 CMR 124. [06-096 CMR 124, 4(C)(3)(a)]
- e. This limit shall apply to RBC emissions except for periods of maintenance or shutdown and periods following the startup and shutdown of the F.D. and I.D. fans. [A-214-70-H-A (April 15, 2008)] This allowance during periods following the startup and shutdown of the F.D. and I.D. fans is because the ESP includes safety interlocks to prevent ESP operation when explosive gases may be present in the boiler, to prevent the sparking of an explosion by the ESP. In particular, a safety interlock prohibits the operation of the ESP until after the Primary F.D. fan, Secondary F.D. fan, and I.D. fan have been in operation for long enough to purge potentially explosive gases from the boiler. Safety interlocks are also in place to prevent ESP operation if either the F.D. or the I.D. fan stops. Startups and shutdowns of these F.D. and I.D. fans are infrequent, and the associated visible emissions are unavoidable and not caused by operator error or poor maintenance.

Rumford Paper Company shall continue to implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared for each unit under 40 CFR 63.866(a), when the average of 10 consecutive six-minute block averages results in a measurement greater than 20% opacity. [06-096 CMR 101 and 40 CFR Part 63, Subpart MM]

When maintenance is being performed on either precipitator chamber, visible emissions from the stack shall not exceed 60% opacity on a six minute block average basis. [06-096 CMR 101, 06-096 CMR 140, BPT, and A-214-70-H-A (April 15, 2008)]

National Fire Protection Association (NFPA) and RBC

“National Fire Protection Association (NFPA) 85 Boiler and Combustion Systems Hazards Code (Section 6.6.5.2.5.4(F) of the NFPA 85, edition 2011) requires that the ESP trip on interlock with a boiler Master Fuel Trip (MFT), which may result in unavoidable opacity exceedances. The code requirement is intended to prevent ignition of potentially explosive gases that may be present in the precipitator chamber following a boiler trip; therefore, when an affected unit experiences a MFT that is not the result of operator error or poor maintenance, it is a result of a malfunction as defined in 40 CFR §60.2. Thus, possible opacity deviations during such events are not considered excess emissions per 40 CFR Part 60, §60.284(e)(1).

4. NO_x RACT

NO_x RACT for RBC was determined to be the installation of a NO_x CEMS and compliance with limits established in 06-096 CMR 138 on a 24-hour block average basis. As specified in 06-096 CMR 138 §3(O), for any source that employs the use of a CEMS, periods of startup, shutdown, equipment malfunction, and fuel switching shall not be included in determining 24-hour daily block arithmetic average emission rates provided that operating records are available to demonstrate that the facility was being operated to minimize emissions.

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with RBC shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

| Pollutant | Emission Limit | Compliance Method | Frequency |
|------------------|--------------------------|---|---|
| PM | gr/dscf and lb/hr limits | Stack testing: 40 CFR Part 60, Appendix A, Method 5 | Once every five years or more frequently upon request by the Department |
| PM ₁₀ | lb/hr limit | | Upon request |

| <u>Pollutant</u> | <u>Emission Limit</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|-------------------|--------------------------------------|--------------------------|------------------|
| SO ₂ | ppmv limit, 30-day rolling average | SO ₂ CEMS | Continuously |
| | lb/hr limits 3-hour block average | | |
| NO _x | ppmv limit, 24-hour block average | NO _x CEMS | Continuously |
| | lb/hr limit, 24-hour block average | | |
| CO | lb/hr limit | Stack Testing | Upon request |
| VOC | lb/hr limit | Stack Testing | Upon request |
| TRS | ppmv limit, 12-hour block average | TRS CEMS | Continuously |
| Visible Emissions | Opacity limit, % | COMS | Continuously |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

6. Periodic Monitoring

Rumford Paper Company shall monitor and record parameters for RBC and its associated air pollution control equipment as indicated in the following table whenever the equipment is operating.

| <u>Parameter</u> | <u>Units of Measure</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> | |
|-----------------------------------|-------------------------|-------------------------------------|--|---------------|
| | | | <u>Monitor</u> | <u>Record</u> |
| Fuel oil firing rate | gpm | Flow Meter | Continuously | 24-hr average |
| Fuel oil sulfur content | percent by weight | Fuel Purchase Records from Supplier | As fuel is purchased/delivered, documented semi-annually | |
| Natural gas firing rate | MMscf/hour | Flow Meter | Continuously | 24-hr average |
| Fuel Oil and Natural Gas Fuel Use | gallons and MMscf | Recordkeeping | Monthly and annually | |
| Black liquor firing rate | gpm and MMlb BLS/day | Flow Meter | Continuously | 24-hr average |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

Based on best management practices and the type of fuel for which the recovery boiler was designed, it is unlikely that RBC will exceed the emission limits for CO and VOC. Therefore, periodic monitoring by the source for

these pollutants is not required. However, neither the EPA nor the State is precluded from requesting the Mill to perform testing and may take enforcement action for any violations discovered.

7. CEMS and COMS

Continuous Emission Monitoring for RBC shall consist of the following:

| <u>Continuous Monitor</u> | <u>Unit of Measurement</u> | <u>Averaging Period</u> | <u>Origin and Authority</u> |
|---------------------------|----------------------------|-------------------------|------------------------------------|
| NO _x CEMS | ppmv | 24-hour block average | 06-096 CMR 138 |
| | lb/hr | | |
| SO ₂ CEMS | ppmv | 30-day rolling average | 06-096 CMR 140, BPT |
| | lb/hr | 3-hour block average | |
| Opacity | percent (%) | 6-minute block average | 40 CFR Part 63, Subpart MM §63.864 |
| TRS CEMS | ppmvd @ 8% O ₂ | 12-hour block average | 06-096 CMR 124(4) |

N. Smelt Tank C

Smelt Tank C was installed in 1981. Emissions from Smelt Tank C exit via two venturi scrubbers and through two identical stacks, each 200 hundred feet AGL. During the combustion of black liquor in Recovery Boiler C, the heating value of the lignin is released and the pulping chemicals are recovered as smelt, which is removed from the bottom of the recovery boiler and transferred to the smelt tank, where the hot smelt mixes with water to form green liquor. Steam is generated and vented from the smelt tank.

Control Equipment

Air pollutants from Smelt Tank C are PM, PM₁₀, SO₂, and TRS. Particulate matter emissions from smelt tanks are comprised of finely divided smelt particles that become entrained in the exhaust gases. Smelt Tank C is equipped with two venturi scrubbers for emissions control.

1. New Source Performance Standards (NSPS)

Smelt Tank C is subject to 40 CFR Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills* for units manufactured after September 24, 1976. The requirements of this Subpart are included in this license.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

Smelt Tank C is subject to the requirements of *NESHAPs for Chemical Recovery Sources at Kraft, Soda, Sulfite, and Stand-Alone Semicemical Pulp Mills*, 40 CFR Part 63, Subpart MM. The requirements of Subpart MM are included in this license.

3. Streamlining and Emission Limits

Rumford Paper Company accepts streamlining for PM emissions from Smelt Tank C. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

| <u>Pollutant, Units</u> | <u>Applicable Emission Limits</u> | <u>Origin and Authority</u> | <u>Licensed Emission Limits</u> |
|------------------------------|--------------------------------------|---|--------------------------------------|
| PM, lb/ton | 0.20 lb/ton BLS, dry weight | 40 CFR Part 60, Subpart BB, §60.282(a)(2) | 0.192 lb/ton BLS |
| | | 40 CFR Part 63, Subpart MM, §63.862(a)(1)(i)(B) | |
| | 0.192 lb/ton BLS | BACT/BPT (A-217-71 E-A/R, 7/18/1989) | |
| PM, lb/hr | 16.0 lb/hr | BACT/BPT (A-217-71 E-A/R, 7/18/1989) | 16.0 lb/hr |
| PM, lb/ADTP | 0.5 lb/ADTP, 2-hr sampling period | 06-096 CMR 105(2) | |
| PM ₁₀ , lb/ton | 0.190 lb/ton BLS | BACT/BPT (A-217-71 E-A/R, 7/18/1989) | 0.190 lb/ton BLS |
| PM ₁₀ , lb/hr | 15.8 lb/hr | | 15.8 lb/hr |
| SO ₂ , lb/ton BLS | 0.067 lb/ton BLS | BACT/BPT (A-217-71 E-A/R, 7/18/1989) | 0.067 lb/ton BLS |
| SO ₂ , lb/hr | 5.5 lb/hr | BACT/BPT (A-214-71-S-A/R, 9/3/1996) and 06-096 CMR 140, BPT | 5.5 lb/hr |
| TRS, lb/ton | 0.033 lb/ton BLS as H ₂ S | 40 CFR Part 60, Subpart BB, §60.282(a)(4) and 06-096 CMR 124(3)(J) | 0.033 lb/ton BLS as H ₂ S |

4. VOC RACT

The Mill is required by 06-096 CMR 124 to meet a TRS emission limit and by a license condition to control PM emissions by a wet scrubber system. As a result, some of the VOC emissions from the Smelt Tank C are also controlled. The control of VOC emissions by a wet scrubber system was determined to be VOC RACT.

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with Smelt Tank C shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

| Pollutant | Emission Limit | Compliance Method | Frequency |
|------------------|--------------------------------|---|---|
| PM | lb/ton BLS and lb/hr | Stack testing: 40 CFR Part 60, Appendix A, Method 5 | Once every five years or more frequently upon request from the Department |
| PM ₁₀ | lb/ton BLS and lb/hr | | Upon request from the Department |
| SO ₂ | lb/ton BLS and lb/hr | Stack Testing: 40 CFR Part 60, Appendix A, Method 6 | Upon request from the Department |
| TRS | lb/ton BLS as H ₂ S | Stack testing: 40 CFR Part 60, Appendix A, Method 16B | Once every two years or more frequently upon request from the Department |

6. Parameter Monitors

The Mill shall monitor and record parameters for Smelt Tank C and its associated air pollution control equipment as indicated in the following table whenever the equipment is operating. [40 CFR Part 60, Subpart BB and 06-096 CMR 140, BPT]

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|---------------------|-------------------------------|--------------|-----------------------------|
| | | | Monitor | Record |
| Venturi pressure drop ¹ | in. of water column | Differential pressure monitor | Continuously | once every 15-minute period |
| Scrubber media flow rate | gpm | Flow meter | Continuously | |
| Scrubbing liquid supply pressure to the scrubbers ² | psi | Pressure gauge | Continuously | |

¹ Requirement of 40 CFR Part 60, Subpart BB, §60.284 (b)(2)(i)

² Requirement of 40 CFR Part 60, Subpart BB, §60.284 (b)(2)(ii)

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

O. Lime Slaker and Causticizers

Lime produced in the Lime Kiln discharges into the Lime Slaker, along with fresh lime makeup as needed. In the slaker, the lime is mixed with water and converted to hydrated lime (Ca(OH)₂). Green liquor and hydrated lime are then converted in the Causticizer Tanks to white liquor, which is used in the digesters. Rumford Paper Company operates one Lime Slaker manufactured by Ahlstrom Corp. The slaker was installed in 1989 and began operation in 1990. The Mill operates four Causticizing Tanks which were installed in 1989 and began operation in 1990.

Control Equipment

Particulate emissions from the Lime Slaker are controlled by a static scrubber and vented to a 120 foot AGL stack. Wet scrubbing is considered the most appropriate control alternative for this type of source because the scrubbing media can be reused in the process. Emissions from Causticizing Tanks #1, #2, and #3 exhaust through the Lime Slaker static scrubber. Causticizing Tank #4 is vented to atmosphere. Causticizers are identified as insignificant activities under 06-096 CMR 140, Appendix B, §B(A)(88) and are not addressed further in this license.

1. NSPS and NESHAPs

Neither lime slakers nor causticizers are addressed by NSPS 40 CFR Part 60 or NESHAPs 40 CFR Part 63.

2. Lime Slaker Emission Limits & Compliance Methods

| <u>Pollutant</u> | <u>Applicable Emission Standards</u> | <u>Origin and Authority</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|-------------------|---|---|---|----------------------------------|
| Visible Emissions | 20% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 1-hour period | 06-096 CMR 101, §2(B)(3)(d) BACT/BPT (A-217-70-A-I, July 30, 2003) | Stack testing: 40 CFR Part 60, Appendix A, Method 9 | Upon request from the Department |

3. Lime Slaker Parameter Monitoring

The Mill shall operate monitors and record the following parameters as specified for the Lime Slaker [06-096 CMR 140, BPT]:

| <u>Parameter</u> | <u>Units of Measure</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> | |
|--------------------------|-------------------------|-------------------------------|------------------|-----------------------|
| | | | <u>Monitor</u> | <u>Record</u> |
| Scrubber media flow rate | gpm | Flow meter | Continuously | once every 15-minutes |

P. Kraft Pulping Process Components

1. Chip Bin/Steaming

The Rumford Paper Company operates one chip bin, the Kamyrr Chip Bin, from which wood chips are fed to the digester systems. Wood chips are conveyed from the chip bin to a pressurized steaming vessel that, in turn, feeds the corresponding digester.

Emissions from the chip bin when using flash steam from the steaming vessel are subject to 40 CFR Part 63, Subpart S. The Kamyrr Chip Bin emissions are collected as part of the High Volume, Low Concentration (HVLC) system, which is described in Section Q of this license's Findings of Fact.

2. Digester Systems

Rumford Paper Company's Kamyrr Continuous Digester System consists of the Kamyrr Digester and a 250-ton Blow Tank. The Batch Digester System consists of 10 Batch Digesters and 2 associated Batch Blow Tanks. In the digester systems, wood is "cooked" under pressure in white liquor, a chemical solution which dissolves lignin, the substance which holds wood fibers together. The Kamyrr Digester was installed in 1961. Batch Digesters #5 through #10 were installed in 1949, and Batch Digesters #1 through #4 were installed in 1990.

Regulated pollutants emitted from the Digester Systems are VOCs and TRS. Emissions from the Digester Systems are captured as part of the Low Volume, High Concentration (LVHC) gas collection system, in accordance with 06-096 CMR 124, *Total Reduced Sulfur Control from Kraft Pulp Mills*, and 40 CFR Part 63, Subpart S, and incinerated in the Lime Kiln, Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7. The LVHC system is addressed further in Section Q of this license's Findings of Fact.

a. New Source Performance Standards (NSPS)

Batch digesters #1 - #4 are subject to NSPS 40 CFR Part 60 Subpart BB, *Standards of Performance for Kraft Pulp Mills*, for units manufactured after September 24, 1976. Batch digesters #5 - #10 and the Kamyrr digester were manufactured prior to 1976 and are therefore not subject to 40 CFR Part 60 Subpart BB.

Combustion of emissions from batch digesters #1 - #4 in the Lime Kiln, Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7 meets the applicable standard for TRS contained in Subpart BB.

b. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

The digesters are subject to 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*. [40 CFR §63.443(a)(1)(i)] Condensates from this system are treated by the Steam Stripper in accordance with Subpart S, §63.446.

c. VOC RACT

The control of VOC emissions from the Digesters by collection and incineration in the Lime Kiln, Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7, in compliance the TRS control requirements of 06-096 CMR 124, was determined to be meeting VOC RACT requirements.

3. Brownstock Washer Systems

The Mill operates two Brownstock Washer lines: The Softwood Brownstock Washer Line was installed in 1961, and the original Hardwood Brownstock Washer Line was installed in 1951. The Hardwood Brownstock Washer Line was modified by installation of the CB washer in 1990 and the DD washer in 2002. The DD washer replaced the three original vacuum drum washers.

Regulated pollutants emitted from the Brownstock Washer Systems are VOC and TRS. Emissions from the Brownstock Washer Systems are captured by the High Volume, Low Concentration (HVLC) gas collection system and incinerated in Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7.

a. New Source Performance Standards (NSPS)

The Softwood Brownstock Washer Line was installed prior to the applicability date for 40 CFR Part 60, Subpart BB for Kraft Mill Brownstock Washers. Due to the modification of the hardwood washer system with the installation of the CB washer in 1990 and the DD washer in 2002, the Hardwood Brownstock Washer Line is subject to 40 CFR Part 60, Subpart BB.

b. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

Both washer systems are subject to 40 CFR Part 63, Subpart S and 06-096 CMR 124. The emissions collection system meeting the applicable requirements for the Brownstock Washers is discussed further in Section Q. of this license.

c. VOC RACT

During development of 06-096 CMR 134, *Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds*, the Paper Industry Information Office [now Maine Pulp and Paper Association (MPPA)] performed a VOC RACT analysis on various VOC sources from a representative paper mill in Maine. From that analysis, it was determined that the control of VOC emissions from the pulp stock washers would have an adverse economic impact; thus, VOC emissions from the Brownstock Washer Systems were determined to be meeting VOC RACT as of the 06-096 CMR 134 compliance deadline of May 31, 1995. Since that deadline, the Mill has installed a High Volume, Low Concentration (HVLC) system that provides additional VOC controls by collecting and incinerating these gases in Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7, in accordance with 06-096 CMR 124 and 40 CFR Part 63, Subpart S.

4. Deckers

The Hardwood Decker was installed in 1961 and originally operated as the Softwood Decker until 1990. The Hardwood Decker uses fresh water or process water containing less than 400 ppmw of HAP (measured as methanol), and therefore is not required to be collected per 40 CFR Part 63, Subpart S. Emissions of TRS are less than the threshold that requires collection per 06-096 CMR 124.

The Softwood Decker utilizes process water containing greater than 400 ppmw of HAP (measured as methanol), and is therefore required to be collected per the requirements of 40 CFR Part 63, Subpart S. When using process water containing greater than 400 ppm of HAP, emissions of TRS are greater than the threshold that requires collection per 06-096 CMR 124. Emissions from the Softwood Decker are captured and collected as part of the HVLC gas collection system and incinerated in Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7.

5. Multiple Effect Evaporator System

The Multiple Effect Evaporators were designed and manufactured by Goslin-Birmingham and installed in 1981. These evaporators were designed with six effects and are non-direct contact systems. The Mill also operates two pre-evaporators and two concentrators which are considered part of the Evaporator System. A regulated pollutant emitted from the Multiple Effect Evaporators is TRS, which is captured by the LVHC gas collection system, in accordance with 06-096 CMR 124, and incinerated in the Lime Kiln, Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7.

a. New Source Performance Standards (NSPS)

The Multiple Effect Evaporators are subject to 40 CFR Part 60, Subpart BB for Kraft Multiple Effect Evaporators manufactured and installed after September 24, 1976.

b. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

The Multiple Effect Evaporators are part of the Mill's LVHC system, in accordance with 06-096 CMR 124, and are subject to 40 CFR Part 63, Subpart S per §63.443(a)(1)(i). Certain condensates from this system are collected and treated by the Steam Stripper and recycled as specified in 40 CFR Part 63, §63.446.

c. VOC RACT

The control of VOC emissions from the Multiple Effect Evaporators by collection and incineration in the Lime Kiln, Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7 which complies with 06-096 CMR 124 for

the control of TRS emissions and with 40 CFR Part 63, Subpart S has also been determined as meeting VOC RACT requirements under 06-096 CMR 134.

Q. Emissions from Pulping Process Components

1. LVHC System

- a. In accordance with applicable requirements of 40 CFR Part 63, Subpart S and 06-096 CMR 124 and efforts to reduce emissions of malodorous compounds at the Mill, the Mill collects and controls low volume, high concentration gas streams containing non-condensable gases. This collection and control system is the Low Volume, High Concentration (LVHC) system and collects gaseous emissions from the following equipment:

Hardwood and Softwood Digester Systems (including all ten batch digesters and the Kamyr continuous digester);
Evaporator System; and
Condensate Collection System.

The relief and blow gases from the digesters and the TRS-containing gases from the evaporators are collected as part of the LVHC collection system and incinerated in Cogen Boiler #6, Cogen Boiler #7, Power Boiler #3, or the Lime Kiln. Condensates from the LVHC system are collected and treated by the Steam Stripper, described in Section Q, Part 4 of this license's Findings of Fact.

The Mill shall maintain a written preventative maintenance program for each respective TRS gas collection system in accordance with 06-096 CMR 124 (3)(G).

b. LVHC System Recordkeeping and Reporting

The Digester Systems and Evaporator Systems shall comply with the recordkeeping and reporting requirements of 40 CFR Part 63, Subpart S and 06-096 CMR 124. The Mill shall not allow venting of TRS from the LVHC system or associated equipment required to be controlled which

- (1) exceeds 40 minutes in duration; or
- (2) contributes to an aggregate TRS venting of more than 1.0% of quarterly operating time. [06-096 CMR 124 (3)(C)]

The Mill must report verbally, in writing, or via facsimile to the Department no later than the next State working day any venting of TRS to the atmosphere from the LVHC collection system of longer than 15 minutes. [06-096 CMR 124 (5)(B)(1)]

The Mill must submit to the Department quarterly reports which identify the following:

- (1) All ventings of TRS from the LVHC system or associated equipment that exceeds 40 minutes in duration;
- (2) All venting of TRS from the LVHC system or associated equipment for greater than one minute which contributes to an aggregate TRS venting of more than 1% of quarterly operating time; and
- (3) All venting of TRS from the LVHC system or associated equipment for greater than 15 minutes when the aggregate TRS venting exceeds 0.5% of quarterly operating time. For each event, an explanation shall be included of the cause of the event and action taken to prevent similar events from occurring in the future.

[06-096 CMR 124 (5)(C)(5), (6), and (7)]

2. HVLC System

In accordance with 40 CFR Part 63, Subpart S and 06-096 CMR 124, Rumford Paper Company collects and controls high volume, low concentration gas streams containing non-condensable gases as part of their High Volume, Low Concentration (HVLC) system. Gases collected as part of the HVLC System are conveyed for destruction in Boiler #3, Cogen Boiler #6, or Cogen Boiler #7.

The Mill shall maintain a written preventative maintenance program for each respective TRS gas collection system in accordance with 06-096 CMR 124 (3)(G).

a. Kamyrr Chip Bin Vent Gas Control System

The collection and oxidation of the Kamyrr Chip Bin vent gases reduces emissions to the atmosphere of TRS, VOCs, and methanol (a HAP). The non-condensable gases collected from the Chip Bin are considered part of the Mill's HVLC system according to 06-096 CMR 124 and are defined as a miscellaneous source in that rule. Kamyrr Chip Bin gases are collected into the HVLC system when flash steam is being used in the Chip Bin; however, if fresh steam is used in the Chip Bin, the gases are not required to be collected as part of the HVLC system and are instead vented to the atmosphere, compliant with Subpart S and 06-096 CMR 124 requirements.

The Chip Bin is sealed to reduce the generated gas volume and to minimize infiltration, thus reducing the danger of gas explosions by minimizing oxygen content of the vent gases. The gases from the Chip Bin pass through a series of coolers, separators, and condensers before incineration, further reducing the volume of sulfur compounds to be

oxidized in the mill boilers and dampening out variability. A flame arrester is installed in the gas collection line after the Chip Bin condenser. Gases from the Chip Bin are transported by a steam eductor to the main collection piping, which conveys the gases to one of the above specified combustion units for destruction. TRS compounds in the gases are oxidized to SO₂, which is then controlled by the combustion unit's SO₂ controls. Condensates in the piping system are conveyed to the Steam Stripper.

The Kamyr Chip Bin is subject to and shall continue to comply with the requirements of 06-096 CMR 124 and 40 CFR Part 63, Subpart S.

b. Hardwood Brownstock Washer Control System

The vent gas piping collects the applicable sources of the Hardwood Brownstock Washer System as part of the Mill's HVLC system. The Hardwood Brownstock Washer System is subject to and shall continue to comply with the requirements of NSPS 40 CFR Part 60, Subpart BB and 40 CFR Part 63, Subpart S.

Condensates from the evaporator system are recycled to the DD Washer as part of the Mill's HAP collection and treatment as specified in 40 CFR §63.446(e)(1).

Emissions from the Hardwood Brownstock Washer vents combine with the Kamyr Chip Bin vent gases and Softwood Brownstock Washer System gases and are sent to one of the above specified combustion units for destruction.

c. Softwood Brownstock Washer Control System

The Softwood Brownstock Washer hoods are sealed to minimize the volume of vented gases. Vent system piping collects the applicable vents associated with the Softwood Brownstock Washer System and includes them for control as part of the Mill's HVLC system. The Softwood Brownstock Washer System is subject to the applicable requirements of 06-096 CMR 124 and 40 CFR Part 63, Subpart S.

d. Storage Tank Vent Control System

Emissions from several storage tank vents are collected and included in the HVLC system to minimize TRS emissions from the facility. The tank vents controlled include the following: miscellaneous Pulp Mill tanks, 17% black liquor storage tanks, 52% black liquor storage tank, and 64% black liquor storage tank.

The storage tank vent control system is not required by either 40 CFR Part 63, Subpart S or 06-096 CMR 124. However, given the location and

characteristics of these tanks and the Mill's HVLC system, the Mill has chosen to control the storage tank vents in accordance with their continuing odor emission reduction program. These tanks are below the threshold for miscellaneous sources and therefore are not considered part of the HVLC system for purposes of 06-096 CMR 124.

The saltcake mix tank and the precipitator mix tank vents are not subject to 40 CFR Part 63, Subpart S. These tanks are considered miscellaneous sources under 06-096 CMR 124 and are collected in the HVLC system.

e. Knotter Vents

The knotter systems on the hardwood and softwood brownstock lines consist of the following equipment: primary knotter, stock chest, and a shared backup knotter screen. These systems have low emissions (<0.1 lb HAP/ton ODP) and are therefore not required to have controls installed per 40 CFR Part 63, Subpart S, Section 63.433(a)(1)(ii)(A). These systems are also below the threshold for miscellaneous sources and are therefore not part of the HVLC system under 06-096 CMR 124. However, the Mill has chosen to control components of the hardwood and softwood knotter systems in accordance with their continuing odor emission reduction program.

f. Screen Vents

The screening system consists of the primary and secondary screens and the scalping screen. These vents have low emissions (<0.2 lb HAP/ton ODP) and are therefore not required to have controls installed per 40 CFR Part 63, Subpart S, Section 63.433(a)(1)(ii)(B). These systems are also below the threshold for miscellaneous sources and are therefore not considered part of the HVLC system under 06-096 CMR 124. However, the Mill has chosen to control components of the hardwood and softwood screening systems in accordance with their continuing odor emission reduction program.

g. Deckers

Hardwood Decker

The Hardwood Decker uses fresh water or process water containing less than 400 ppmw of HAP (measured as methanol). The Mill is therefore not required to collect these gases per 40 CFR Part 63, Subpart S, Section 63.443(a)(1)(iv)(A) and (B). The Hardwood Decker is also below the threshold of a miscellaneous source for 06-096 CMR 124. If, in the future, shower water containing more than 400 ppmw of HAPS is used on the Hardwood Decker, Rumford Paper Company will be required to collect the vent gases from the unit and include them in the system to control HAP emissions. The Mill has demonstrated that the use of

stripped condensate as shower water will not result in an increase in annual emissions.

Under current operating scenarios, emissions from the Hardwood Decker are not required to be collected as part of the HVLC system. However, if either of the two following scenarios is implemented, the affected Decker(s) would become subject to HVLC collection requirements:

- (1) shower water containing more than 400 ppm by weight of methanol is used on the Decker [40 CFR Part 63, Subpart S]; or
- (2) shower water is used on the Decker which causes emissions of TRS greater than 0.75 lb/hour on a continuous basis under normal operations [06-096 CMR 124].

Softwood Decker

The Softwood Decker is tied into the vent collection system to allow the option of using process water containing greater than 400 ppmw of HAP. Condensates from the evaporator system are recycled to the Softwood Decker as part of the Mill's HAP collection and treatment as specified in 40 CFR §63.446(e)(1). The collected gases are oxidized in one of the above specified HVLC combustion units. The Softwood Decker System is subject to the requirements of 06-096 CMR 124 and 40 CFR Part 63, Subpart S.

h. General HVLC System Requirements

The HVLC system shall maintain a 96% collection and control uptime based on brownstock washer system operating time on a total mass weighted basis. This collection and control uptime requirement is on a quarterly basis to satisfy 06-096 CMR 124 requirements and on a semi-annual basis to satisfy 40 CFR Part 63, Subpart S requirements. [06-096 CMR 124 (3)(E) and 40 CFR Part 63, Subpart S]

Condensates from the HVLC system shall be collected and treated by the Steam Stripper as required by 40 CFR Part 63, Subpart S.

The Mill must report verbally, in writing, or via facsimile to the Department on the next State working day any venting of TRS to the atmosphere from the HVLC collection system of longer than four hours. [06-096 CMR 124 (5)(B)(2)]

The Mill must submit to the Department quarterly reports which identify all ventings of TRS from the HVLC system greater than one minute in duration when the sum of all venting occurrences is greater than 4% of the quarterly brownstock washer operating time on a total mass weighted basis. [06-096 CMR 124 (5)(C)(8)]

3. Closed Collection and Vent System Monitoring Conditions

Rumford Paper Company is required by 40 CFR Part 63, Subpart S §63.443(c) to enclose and vent to a closed-vent system the equipment systems listed in §63.443(a). The enclosures and closed-vent systems for pulping systems must also meet the requirements specified in §63.450.

Pursuant to 40 CFR Part 63, §63.453(m), the Mill has proposed alternative closed collection and vent system monitoring provisions. The following alternative monitoring provisions were approved by EPA in a letter dated July 16, 2001.

The Mill has demonstrated that unsafe conditions may be created in the inspection and monitoring of some enclosures and closed collection and vent system components as required in 40 CFR Part 63, §63.453(k) and (l). Therefore, for equipment required to be inspected per 40 CFR Part 63, §63.453(k) and (l), the Mill shall exempt any closed vent system, fixed roof cover, or enclosure from 30-day and annual inspection, monitoring, and repair requirements if it is determined that personnel performing the inspection or repair would be exposed to an imminent or potential danger, or if the equipment could not be inspected without elevating the inspecting personnel more than six feet above a supported surface.

A site-specific monitoring plan shall be maintained which identifies exempted equipment and describes how the equipment will be inspected and/or repaired during periods determined to be safe which must be at least once during each permit term.

4. Condensate Collection and Steam Stripper System

In 1998, in advance of the requirements of 40 CFR Part 63, Subpart S and in an effort to reduce emissions of malodorous compounds at the Mill, the Mill installed a Steam Stripper System to treat certain foul condensate streams generated by the mill's pulp manufacturing process. The Steam Stripper System consists of a Stripper Feed Tank, the Steam Stripper column, re-boiler, pre-heaters, condensers, and piping that directs Steam Stripper off-gases (SOGs) to boilers for the destruction of TRS and VOCs.

The Condensate Collection System collects condensates generated in the LVHC, HVLC, and SOG systems; Digester Systems; and Evaporator Systems and transports them to the Stripper Feed Tank. The Steam Stripper receives foul condensate from the Stripper Feed Tank. Through volatilization by direct-contact heat transfer, VOC and TRS compounds are removed from the foul condensate in the form of SOGs. The SOGs are transported to Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7 for incineration. In the incinerating boiler, TRS gases in the SOGs are oxidized to SO₂, which is then controlled by the boiler's SO₂ emissions control device.

a. New Source Performance Standards (NSPS)

The Steam Stripper System is subject to 40 CFR Part 60, Subpart BB, *Standards of Performance for Kraft Pulp Mills*, because the system was installed after September 24, 1976; however, there are no applicable emission limits because the Mill complies with the requirements per §60.283(a)(1)(iii).

b. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

Rumford Paper Company has elected to demonstrate compliance with the pulping condensate collection option listed in 40 CFR Part 63, Subpart S §63.446(c)(3). This option requires collection of pulping process condensates that contain a total HAP mass of 11.1 pounds or more per ton of oven-dry pulp (ODP) for mills that perform bleaching. The Department requires a 30-day rolling average for compliance with condensate collection requirements, the 30-day average including only days when condensate sources are operating.

To demonstrate compliance with pulping condensate treatment requirements, the Mill treats pulping condensates per 40 CFR Part 63, Subpart S, §63.446(e)(1) and (5) using a condensate stripping column and by recycling the pulping condensates to an equipment system as specified in §63.443(a), thus meeting the requirements specified in §63.443(c) and (d). EPA guidance specifies that condensates recycled to an equipment system meeting these requirements are considered to achieve 98% HAP removal efficiency.

Treatment of pulping process condensates must ensure one of the following:

- Removal of a minimum of 10.2 pounds of HAP per ton of ODP, or
- Achievement of a total HAP concentration of no more than 330 ppm at the outlet of the control device.

Under paragraph §63.446(g), excess emissions from condensate collection or treatment requirements are not violations, provided that the total of excess emissions (including periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed 10%.

The Foul Condensate Tank shall meet the requirements of 40 CFR Part 63, Subpart S §63.446(d)(2).

c. Emissions Reporting

Emissions from the Steam Stripper System shall be collected and controlled by Boiler #3, #6, and/or #7 for a minimum of 99% of the Steam

Stripper operating time on a quarterly basis. This collection and control uptime requirement is on a quarterly basis to satisfy 06-096 CMR 124 requirements and on a semi-annual basis to satisfy 40 CFR Part 63, Subpart S requirements. [06-096 CMR 124 (3)(F) and 40 CFR Part 63, Subpart S]

The Mill must report verbally, in writing, or via facsimile to the Department on the next State working day any venting of TRS to the atmosphere from the Steam Stripper System of longer than 15 minutes. [06-096 CMR 124 (5)(B)(1)]

The Mill shall submit to the Department quarterly reports which identify all ventings of emissions from the Steam Stripper Collection System greater than one minute in duration when the sum of all venting occurrences is in excess of 1% of the quarterly Steam Stripper Collection System operating time. [06-096 CMR 124 (5)(C)(9)]

d. Parameter Monitoring

Parameter monitoring for the Steam Stripper shall consist of the following parameters as specified [40 CFR Part 63, §63.453(g)]:

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|------------------|------------------------|---|--------|
| | | | Monitor | Record |
| Process wastewater feed rate | gpm | Flow meter | Monitor continuously, record every 15 minutes | |
| Steam feed rate | kpph | Flow meter | | |
| Process wastewater column feed temperature | °F | Temperature probe | | |

To establish or reestablish the value for each operating parameter required to be monitored under Subpart S as identified in the table above, the Mill shall use data obtained during the most recently conducted successful performance test. Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations. Rumford Paper Company shall provide to the Department the rationale for selecting the monitoring parameter ranges, including all data and calculations used to develop the values. [40 CFR Part 63, Subpart S, §63.453(n)]

R. Bleach Plant

The Mill Bleach Plant consists of the following components:

- Bleach Plant A-Line (Softwood),
- Bleach Plant B-Line (Hardwood),
- A-Line and B-Line Bleach Plant Scrubber Systems,

- R8 ClO₂ Generation Plant, and
- R8 ClO₂ Scrubber System.

1. Process Descriptions

a. Bleach Plants A-Line and B-Line and Bleach Plant Scrubber Systems

To produce high quality, stable pulp products, the industry utilizes bleaching methods to remove lignin from the pulp. Effective bleaching is achieved through a continuous sequence of process stages utilizing certain chemicals and conditions in each stage. Rumford Paper Company operates two bleaching lines, A and B, each of which are composed of a three-stage bleaching process: D, E_{op}, D, including delignification¹ and extraction² phases. Each bleaching stage consists of a reaction tower, washer, and seal tank.

¹ Delignification is the detachment of lignin from the desired pulp product, represented in the bleaching sequence notation as D.

² Extraction is the removal of the lignin portion of the mix, represented in the bleaching sequence notation as E. The subscript(s) indicate what type of chemical(s) is/are used to enhance the extraction process, such as peroxide or oxygen.

Control Equipment

Chlorine (Cl₂) and chlorine dioxide (ClO₂) emissions are collected and controlled by two packed tower scrubbers in series for each bleach line. The Wet Scrubber System to control Cl₂, ClO₂, and VOC emissions from the Bleach Plant was installed in June of 1992.

In each bleach line scrubber system, the gases enter the first packed bed scrubber where caustic, white liquor, and/or weak wash is used as the scrubbing medium. After passing through the first scrubbing tower, the gases continue to the second packed tower scrubber, which uses white liquor, caustic, and/or weak wash as the scrubbing medium. Both the A and B line scrubber systems vent to a combined 140-foot AGL stack. There is also a crossover line to convey bleach plant emissions from one bleach scrubber system to the other if one system malfunctions or fails. Each scrubber system is capable of controlling combined emissions from both A and B bleach lines to remain in compliance with licensed limits. In addition, each individual scrubber system is capable of controlling emissions to below licensed levels with only one of the two packed tower scrubbers in operation.

b. R8 ClO₂ Generation Plant and R8 ClO₂ Scrubber System

To generate ClO₂, Rumford Paper Company operates an R8 process, in which sodium chlorate reacts with methanol and sulfuric acid. In addition to ClO₂, sodium sesquisulfate crystals (acid saltcake) are formed. The saltcake slurry is pumped from the ClO₂ generator to a filter, where the generated liquor and weak wash are separated from the other components and recirculated back to the process. The saltcake is removed from the filter and sent to a dissolving tank. From the dissolving tank, the saltcake solution is pumped to other mill processes.

Control Equipment

After being created, ClO₂ gas passes through an indirect contact cooler, which removes some water vapor from the gas and thus increases the concentration of ClO₂ in the gas stream. The ClO₂ gas stream then goes to the ClO₂ absorption tower (designated S-3), where chilled water absorbs the ClO₂. The off-gases from the S-3 absorber, along with other tank and equipment vents within the R-8 process, are drawn into the vent scrubber (S-10). Additional chilled water is used in the vent scrubber (S-10) to absorb residual ClO₂. The weak ClO₂ solution is then drawn into the absorption tower (S-3). Off-gases from the vent scrubber (S-10) are drawn into the white liquor scrubber (designated S-16), which uses white liquor and/or caustic and/or weak wash to remove any remaining Cl₂ or ClO₂ from the gases before they are exhausted from the ClO₂ Scrubber System to a 45-foot AGL stack.

2. National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The A-Line and B-Line Bleach Plants and scrubber systems are subject to the requirements of the NESHAPs for the Pulp and Paper Source Category, 40 CFR Part 63, Subpart S. [40 CFR Part 63, Subpart S, §63.440(b)(1)]

According to Subpart S, §63.445 (b), the equipment at each bleaching stage where chlorinated compounds are introduced shall be enclosed and vented into a closed-vent system and routed to a control device which meets the requirements specified in §63.450; thus, the extraction stage of the bleach plant (where no chlorinated compounds are introduced) is not subject to this Subpart S requirement.

3. Emission Limits

Emissions of Cl₂ and ClO₂ from the Bleach Plant shall not exceed 3.0 lb/hour for each of these two pollutants. [A-214-70-A-I (July 30, 2003) and 06-096 CMR 140, BPT]

Total chlorinated HAP emissions (not including chloroform) measured as chlorine from the equipment specified in 63.445(b) shall meet the following requirements [40 CFR Part 63, §63.445(c)]:

- a. Reduce the total chlorinated HAP mass in the vent stream entering the scrubber by at least 99% by weight;
- b. Achieve a scrubber outlet concentration of 10 ppmv or less of total chlorinated HAP; or
- c. Achieve a scrubber outlet mass emission rate of 0.002 lb of total chlorinated HAP mass per ton of ODP.

4. VOC RACT

The control of Cl₂ and ClO₂ emissions from the Bleach Plant by the Bleach Plant Scrubber System to 3.0 lb/hour each and the discontinued use of sodium hypochlorite as a primary bleaching agent have been determined to meet VOC RACT requirements. [A-214-70-A-I (July 30, 2003)]

5. Parameter Monitors

The Mill shall operate monitors and record the following parameters as specified for the Bleach Plant Scrubber Systems A & B [CFR Part 63, §63.453(c) and 06-096 CMR 140, BPT] and the R8 ClO₂ Scrubber System [06-096 CMR 140, BPT]:

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|------------------------|-------------------------------|--------------|----------------|
| | | | Monitor | Record |
| Recycle Flow Rate | gpm | Flow meter | Continuously | Once per Shift |
| Pressure Drop | inches of water column | Differential pressure monitor | | |
| Recycle Flow ORP* | mvolts | Probe | | |
| Bleach Plant Scrubber fan amperage * | amps | Amp meter | | |
| ClO ₂ Scrubber fan "on/off" | on/off operation | Distributed Control System | | |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

* Approved Alternate Monitored Parameters

Pursuant to 40 CFR §63.453(m), Rumford Paper Company proposed an alternative parameter to monitor instead of the scrubber vent gas inlet flow rate monitoring required by §63.453(c). This proposal was approved by EPA in a letter dated March 29, 2001; thus, the Mill shall continue to monitor

Bleach Plant Scrubber fan amperage for the bleaching system scrubber vent gas fan in lieu of monitoring vent gas inlet flow rate.

Pursuant to 40 CFR §63.453(m), the Mill proposed an alternative parameter to monitor instead of monitoring pH or the oxidation/reduction potential (ORP) of the bleach plant scrubber effluent as required by §63.453(c). This request was approved by EPA in a letter dated July 11, 2001; thus, the Mill shall continue to monitor the ORP of the bleach plant scrubber recycle stream instead of the ORP of the bleach plant scrubber effluent.

If the Mill finds it necessary to reestablish the value for any operating parameter or its EPA-approved substitute parameter required to be monitored under Subpart S as identified in the table above, the Mill shall use data obtained during the most recently conducted successful performance test. Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations. Rumford Paper Company shall provide for Departmental approval the rationale for selecting the newly monitoring parameter ranges, including all data and calculations used to develop the values. [40 CFR Part 63, Subpart S, §63.453(n)]

When only one scrubber system is controlling emissions from both Bleach Plants A-Line and B-Line and its operating parameters are within acceptable operating ranges, monitoring on the additional scrubbers is redundant and will not be considered as parameter monitor downtime. Likewise, if one of the two scrubber columns is controlling emissions from one Bleach Line and its operating parameters are within acceptable operating ranges, monitoring on the additional scrubbers is redundant and will not be considered as parameter monitor downtime. [06-096 CMR 140, BPT]

Parametric monitors must operate at least 90% of the time during each quarter. Documentation shall be maintained by the facility to show compliance with uptime requirements. [06-096 CMR 140, BPT & A-214-70-A-I, July 30, 2003]

The Mill shall operate each Bleach Plant Scrubber System, when the corresponding Bleach Plant is operating, in accordance with the requirements of 40 CFR 63, §63.445(c). [40 CFR 63, §63.445(b), 06-096 CMR 140, BACT, and 38 M.R.S.A 589, Subsection 2]

The Mill shall run the A-Line and B-Line Bleach Plant Scrubber System fan(s) at maximum speed during any performance test used to demonstrate compliance. [40 CFR Part 63, §63.453(m)]

The Mill shall comply with all applicable monitoring requirements found in 40 CFR Part 63, §63.453(m), (n), and (o). [40 CFR Part 63, §63.453(m)]

S. Groundwood Operations

1. Description

The Mill operates a mechanical Groundwood Pulp Mill as part of their facility. The Groundwood Pulp Mill process area produces groundwood pulp through a mechanical pulping process. The process begins as debarked poplar logs are received from the long log operation in the south yard area. The logs are first dumped into a water-filled dump tank and then pulled manually through a water-filled trough into a set of grinders which grind the logs against rotating stones then mix the result with water to produce a mechanical pulp. There are four atmospheric-type grinders at the Mill which operate in parallel configuration.

The pulp is then screened, mechanically refined, cleaned with centrifugal cleaners, and bleached with hydrogen peroxide, caustic, and silicate. The pulp is then stored in a high-density pulp storage tank prior to being pumped to the paper machines.

The Groundwood Operation is listed as an emission unit collectively as a source, although individual vents may be categorically exempt or classified as insignificant activities. A regulated pollutant emitted from the Groundwood Operation is VOCs. VOC emissions such as methanol, terpenes, pinenes, acetone, etc. are released from groundwood operations.

Since there is very little published VOC emission factor data for groundwood operations, emission factors were developed based on VOC source tests conducted at other similar facilities. The Mill has estimated that VOC emissions are approximately 1.1 pounds of VOC per air dry ton of pulp (ADTP), which equates to 36 tons per year, based on representative groundwood pulp production rates.

2. VOC RACT

The Groundwood Operations at the Mill are not exempt pursuant to Sections 1(C) or eligible to achieve compliance through Option (D) of Section 3(A) of 06-096 CMR 134; therefore, the facility provided an alternative VOC RACT analysis as specified by Section 3(A)(3) of 06-096 CMR 134.

Combustion of the VOCs within the Mill's existing boilers was not considered to be feasible due to the length of the ductwork which would be needed to transport the gases from the Groundwood Operations to the boilers. The distance between the Groundwood Mill and the boilers is approximately a quarter of a mile.

The Department has concluded that there are no technically or economically feasible control options to reduce VOC emissions from the Groundwood

Operations; thus, VOC emissions from the Groundwood Operations are meeting RACT requirements.

T. Bulk Handling Systems

The Mill operates the following bulk handling and storage systems:

- 1) Number 15 Paper Machine Starch Silo #1
- 2) Number 15 Paper Machine Starch Silo #2
- 3) North Mill Starch Silo #1
- 4) North Mill Starch Silo #2
- 5) Lime Kiln Lime Silo
- 6) Cogen Limestone Silo
- 7) Farrington Mountain Ash Conditioning Facility Silo
- 8) Cogen Fly Ash Silo

In order to minimize fugitive emissions, Rumford Paper Company shall develop and follow an established Best Management Practice (BMP) Plan for all mill bulk handling and unloading systems. The BMP shall be available to the Department upon request. For the bulk handling systems, the Mill shall comply with the following [06-096 CMR 140, BPT]:

1. Maintain the alarm systems in proper operating condition.
2. Maintain all baghouses to achieve visible emissions no greater than 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period.
3. Clean-up all spills within 24 hours of the occurrence of each spill.
4. Inspect all unloading systems for leaks and malfunctions as described by the Mill's BMP Plan.
5. Discontinue unloading until leaks and/or malfunctions are eliminated.

U. Landfill Flare

The Mill operates a flare incineration system on the gas collection system at their landfill in Mexico, Maine. The flare incinerates gases – including methane – generated by the decomposition of landfilled materials (landfill gases) and oxidizes entrained sulfur compounds.

The gases are drawn from the gas collection system by a fan and then ignited by a propane fuel pilot. This is an enclosed flare system such that the flame is totally enclosed at the base of a cylindrical chimney. The flare is operated on an intermittent basis: When the collected landfill gases reach a combustible concentration, the gases are incinerated until the concentration of the gases falls below combustible levels. The flare design guarantees an enclosed flame

temperature between 1400°F and 2000°F and a destruction level for hydrocarbons of over 99%.

The landfill flare was installed in 1995 to reduce odors from the landfill and has subsequently become governed by the landfill Operations and Maintenance Manual and overseen by the Maine DEP Bureau of Remediation and Waste Management (BRWM).

The Department finds that this system meets BPT requirements for landfill gas emissions from the Landfill. However, there are many different options available for the management of landfill gases, with or without the use of an active flare. One such option is the replacement, under the oversight of the BRWM, of the current active flare system with one or more passive flare systems. Under this option, a passive flare which generates a spark periodically is installed on the top of certain manholes. If the landfill gas in the manhole has reached a combustible concentration, the spark will ignite the gas. The use of passive flares at the landfill in place of the active flare is not expected to result in more emissions than the active flare system's estimated emissions.

Operation of the landfill in accordance with the landfill Operations and Maintenance Manual under the oversight of the Maine DEP BRWM satisfies BPT requirements for this component of the Rumford Paper Company operations.

V. Paper Machines and Pulp Dryer

1. R-10, R-12, R-15 Paper Machines & On-Line Coaters

The Mill operates four paper machines with on-line coaters and one pulp dryer. Paper Machines R-12 and R-15 include Beloit Short Dwell Blade Coaters and steam dryers. Paper Machine R-10 contains a Voith Jet Coater and natural gas-fired air flotation dryers. All coatings are aqueous-based and contain minimal or zero levels of VOCs.

a. National Emission Standards for Hazardous Air Pollutants (NESHAPs)

Federal regulation 40 CFR Part 63, Subpart JJJJ, *National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating*, applies to facilities that perform paper and other web coating operations. The Mill performs coating operations on the R-10, R-12, and R-15 Paper Machines. However, the coating is part of the sheet formation and on-machine operations. Pursuant to a letter dated November 19, 2003, from the U.S. EPA to Timothy Hunt of the American Forest and Paper Association (AF&PA), both size presses and on-machine coaters that function as part of the in-line papermaking system used to form the paper substrate are not subject to the MACT [40 CFR Part 63] Subpart JJJJ

requirements. Therefore, Subpart JJJJ does not apply to the R-10, R-12, and R-15 Paper Machines coating operations.

b. Paper Coating Regulation (06-096 CMR 123)

The coaters are not subject to 06-096 CMR 123, *Control of Volatile Organic Compounds from Paper, Film and Foil Coating Regulation* because the regulation does not apply to size presses and on-machine coaters on paper machines that apply sizing or water-based clays, such as the on-machine coaters on Paper Machines R-10, R-12, and R-15. The paper machines are also exempt because all coatings used on the coaters have an applied VOC content less than 2.9 pounds per gallon of coating. [06-096 CMR 123 (1)(C)(1) and (1)(C)(2)]

c. VOC RACT

Maine's VOC RACT rule, 06-096 CMR 134, exempts certain VOC-emitting equipment from the requirements contained therein. These listed exemptions include "paper machine area emissions which include paper machines and the finishing and converting areas." Therefore, the R-10, R-12, and R-15 Paper Machines are exempt from the requirements of this rule. [06-096 CMR 134 (1)(C)(7)]

2. R-10 Paper Machine Air Flotation Dryers #1 – #4

Rumford Paper Company operates four air flotation dryers, installed in 1998 on Paper Machine R-10 to dry coating. Two of the dryers are rated at 6.4 MMBtu/hour and two at 8.05 MMBtu/hour; all are licensed to burn either propane or natural gas. The dryers are designated as the R-10 Dryers #1, #2, #3, and #4.

Emission Limits

Emissions from Paper Machine R-10 Dryers #1, #2, #3, and #4 shall not exceed the following limits [A-214-70-A-I (July 30, 2003)]:

| Pollutant | lb/MMBtu (each dryer) | lb/hr (total) |
|------------------|-----------------------|---------------|
| PM | 0.12 | 3.47 |
| PM ₁₀ | -- | 3.47 |
| SO ₂ | -- | 0.016 |
| NO _x | -- | 4.47 |
| CO | -- | 0.61 |
| VOC | -- | 0.16 |

Visible emissions from each of the R-10 Dryers #1, #2, #3, and #4 shall not exceed 10% opacity on a six-minute block average basis. [A-214-70-A-I (July 30, 2003) and 06-096 CMR 101]

The combustion gases from the dryers come into direct contact with the paper and paper coating; therefore, per the definition of *process heater* in 40 CFR §63.7575, these units are not subject to 40 CFR Part 63, Subpart DDDDD. [40 CFR Part 63, Subpart DDDDD]

3. R-9 Pulp Dryer

The R-9 Pulp Dryer contains steam dryers and no coaters. In New Source Review (NSR) license A-214-77-6-A (June 20, 2008), the Mill upgraded their R-9 Pulp Dryer such that production of the pulp dryer increased from 350 to 400 tons per day. During the 2008 permitting process, a Best Available Control Technology (BACT) analysis was performed for the control of PM and VOC emissions. At that time, the Department determined that no additional controls were required to meet BACT for the control of PM and VOC emissions.

W. Natural Gas-Fired Building Heaters

Rumford Paper Company operates and maintains numerous natural gas fired heaters to provide building heat as necessary. As the heaters were added, they were licensed and subject to BACT requirements, as included in this license.

The natural gas-fired heaters are used to provide comfort heat or space heat. Per the definition of *process heater* in 40 CFR §63.7575, these units are not subject to 40 CFR Part 63, Subpart DDDDD. [40 CFR Part 63, Subpart DDDDD]

Natural Gas-Fired Building Heaters

| <u>Equipment</u> | <u>Max. Capacity (MMBtu/hr)</u> | <u>Max. Firing Rate (scf/hr)</u> | <u>Location</u> |
|------------------|---------------------------------|----------------------------------|-------------------------------|
| NG Unit 1 | 6.54 | 6,350 | North End Building, Finishing |
| NG Unit 2 | 9.62 | 9,340 | Throughout the facility |
| NG Unit 3 | 5.51 | 5,353 | |
| NG Unit 4 | 5.51 | 5,353 | |
| NG Unit A | 2.05 | 1,992 | |
| NG Unit B | 14.11 | 13,700 | |
| NG Unit C | 6.41 | 6,225 | North End Building, Roll Wrap |
| NG Unit D | 6.32 | 6,136 | Throughout the facility |
| NG Unit E | 5.13 | 4,980 | |
| NG Unit F | 4.62 | 4,482 | |
| NG Unit G | 6.41 | 6,225 | |
| NG Unit H | 14.12 | 13,695 | Throughout the facility |
| NG Unit I | 7.69 | 7,466 | North End Building, Dry End |
| NG Unit J | 12.83 | 12,456 | North End Building, Wet End |
| NG Unit K | 7.69 | 7,470 | Throughout the facility |
| NG Unit L | 6.32 | 6,136 | |

| <u>Equipment</u> | <u>Max. Capacity (MMBtu/hr)</u> | <u>Max. Firing Rate (scf/hr)</u> | <u>Location</u> |
|------------------|---------------------------------|----------------------------------|----------------------------|
| NG Unit RB | 10.0 | 9,709 | B Recovery Boiler Building |

Due to the small size of each unit and the fuel for which it was designed, BACT was determined to be good combustion control, the use of natural gas as fuel, and the emission limitations listed in the following table.

1. Emission Limits and Streamlining

Rumford Paper Company accepts streamlining for PM emissions requirements for the natural-gas fired building heaters. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

| <u>Pollutant, Units</u> | <u>Applicable Emission Standards</u> | <u>Origin and Authority</u> | <u>Licensed Emission Limits (for each heater)</u> |
|----------------------------|---|---|---|
| PM, lb/MMBtu | 0.12 lb/MMBtu | 06-096 CMR 103, Section 2(B)(1)(a) | 0.005 lb/MMBtu |
| | 0.005 lb/MMBtu | BACT/BPT (A-214-70-D-A, 4/12/2004 & A-214-77-3-A, 11/7/2007) | |
| NO _x , lb/MMBtu | 0.10 lb/MMBtu * | Vendor | 0.10 lb/MMBtu * |
| CO, lb/MMBtu | 0.10 lb/MMBtu * | Guaranteed Data | 0.10 lb/MMBtu * |
| VOC, lb/MMscf | 5.5 lb/MMscf * | AP-42, dated 7/98 | 5.5 lb/MMscf * |
| SO ₂ , lb/MMscf | 0.6 lb/MMscf * | | 0.6 lb/MMscf * |
| Visible Emissions | 10% opacity on a six-minute block average basis, except for no more than one six-minute block averages in a three-hour period | 06-096 CMR 101, Section 2(B)(1)(a)(i) | 10% opacity on a six-minute block average basis, except for no more than one six-minute block averages in a three-hour period |

* AP-42 factors and vendor guaranteed data are not emission limits but are used to establish lb/hr emission limits

Emissions shall not exceed the following [06-096 CMR 140, BACT]:

| <u>Equipment</u> | <u>Units</u> | <u>PM</u> | <u>PM₁₀</u> | <u>NO_x</u> | <u>CO</u> | <u>VOC</u> |
|------------------|--------------|-----------|------------------------|-----------------------|-----------|------------|
| Unit 1 | lb/hr | 0.03 | 0.03 | 0.65 | 0.65 | 0.03 |
| Unit 2 | | 0.05 | 0.05 | 0.96 | 0.96 | 0.05 |

| Equipment | Units | PM | PM ₁₀ | NO _x | CO | VOC |
|-----------|-------|------|------------------|-----------------|------|------|
| Unit 3 | lb/hr | 0.03 | 0.03 | 0.55 | 0.55 | 0.03 |
| Unit 4 | | 0.03 | 0.03 | 0.55 | 0.55 | 0.03 |
| Unit A | | 0.01 | 0.01 | 0.21 | 0.21 | 0.01 |
| Unit B | | 0.07 | 0.07 | 1.41 | 1.41 | 0.08 |
| Unit C | | 0.03 | 0.03 | 0.64 | 0.64 | 0.03 |
| Unit D | | 0.03 | 0.03 | 0.63 | 0.63 | 0.03 |
| Unit E | | 0.03 | 0.03 | 0.51 | 0.51 | 0.03 |
| Unit F | | 0.02 | 0.02 | 0.46 | 0.46 | 0.02 |
| Unit G | | 0.03 | 0.03 | 0.64 | 0.64 | 0.03 |
| Unit H | | 0.07 | 0.07 | 1.41 | 1.41 | 0.08 |
| Unit I | | 0.04 | 0.04 | 0.77 | 0.77 | 0.04 |
| Unit J | | 0.06 | 0.06 | 1.28 | 1.28 | 0.07 |
| Unit K | | 0.04 | 0.04 | 0.77 | 0.77 | 0.04 |
| Unit L | | 0.03 | 0.03 | 0.63 | 0.63 | 0.03 |
| Unit RB | 0.05 | 0.05 | 0.99 | 0.99 | 0.05 | |

Units 2, 3, 4, A, C, D, E, F, G, H, K, L, and RB shall not exceed an operational limit of 5,040 hours per year each. Compliance shall be demonstrated by records of the first and last operating days in each heating season. [A-214-70-D-A (April 12, 2004) and 06-096 CMR140, BPT]

2. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes records of total amount (MMscf) of fuel fired in the heaters.

Based on best management practices and the type of fuel for which the air heaters were designed, it is unlikely that they will exceed the opacity or particulate emission limits; therefore, periodic monitoring by the source for these pollutants is not required. However, neither the EPA nor the State is precluded from requesting the Mill to perform testing and may take enforcement action for any violations discovered.

X. Generators and Engines

The Mill operates the following emergency generators and engines:

| Generator/Engine | Maximum Input Capacity, MMBtu/hour | Fuel | Year of Install. | Applicable Requirements in... | | |
|----------------------------------|------------------------------------|-------------|------------------|-------------------------------|-------------------|----------------------|
| | | | | NSPS Subpart III | NSPS Subpart JJJJ | NESHAPs Subpart ZZZZ |
| Cogen Emergency Diesel Generator | 1.5 | Diesel fuel | 2002 | -- | N.A. | Yes |
| R15 Emergency Diesel Generator | 1.2 | | 2001 | -- | | |

| Generator/Engine | Maximum Input Capacity, MMBtu/hour | Fuel | Year of Install. | Applicable Requirements in... | | |
|---------------------------------|------------------------------------|------|------------------|-------------------------------|-------------------|----------------------|
| | | | | NSPS Subpart III | NSPS Subpart JJJJ | NESHAPs Subpart ZZZZ |
| Mill Emergency Diesel Generator | 5.4 | | 1999 | -- | N.A. | Yes |
| Diesel Fire Water Pump | 1.6 | | 1984 | -- | | Yes |
| Lift Pump Emergency Generator | 5.1 | | 2008 | Yes | | Yes |

Each of these units is limited to 500 hours per year operation time. BPT for diesel-fired emergency generators and engines includes the use of diesel fuel with a sulfur content not to exceed 15 ppm (0.0015% by weight).

The Mill operates the following non-emergency engine:

| Generator/Engine | Maximum Input Capacity, MMBtu/hour | Fuel | Year of Install. | Subject to... | | |
|---------------------------|------------------------------------|---------------------|------------------|------------------|-------------------|---------------------|
| | | | | NSPS Subpart III | NSPS Subpart JJJJ | NESHAP Subpart ZZZZ |
| Lime Kiln Auxiliary Drive | 0.6 | Natural Gas/Propane | 1990 | N.A. | No | Yes |

1. New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart III

The federal regulation 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is only applicable to the Lift Pump Emergency Generator listed above, since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006.

The Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, Mill Emergency Diesel Generator, and the Diesel Fire Water Pump were installed prior to the 2005 applicability date for 40 CFR Part 60, Subpart III and are therefore exempt from this federal regulation.

a. Emergency Definition [40 CFR §60.4211(f) and §60.4219]

Emergency stationary ICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source if the facility runs on its own power production) is interrupted; or stationary ICE used to pump water in the case of fire, flood, etc.

- (2) Paragraph (1) above notwithstanding, the emergency stationary ICE may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations, counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (2) above.

b. 40 CFR Part 60, Subpart III Requirements

The Lift Pump Emergency Generator shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

The diesel fuel fired in the Lift Pump Emergency Generator shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR §60.4207(b)]

The Lift Pump Emergency Generator is equipped with a non-resettable hour meter. [40 CFR §60.4209(a)]

The Lift Pump Emergency Generator shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by the Mill that are approved by the engine manufacturer. The Mill may only change those emission-related settings that are recommended by the manufacturer. [40 CFR §60.4211(a)]

The Lift Pump Emergency Generator shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. [40 CFR §60.4211(f)]

No initial notification is required for emergency engines. [40 CFR §60.4214(b)]

40 CFR Part 60, Subpart JJJJ

The Lime Kiln Auxiliary Drive is not subject to the federal regulation 40 CFR Part 60, Subpart JJJJ, *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)*, since the unit was ordered prior to June 12, 2006, and manufactured prior to January 1, 2009.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs)

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines* is applicable to the Mill Emergency Diesel Generator, the Lift Pump Emergency Generator, the Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, Diesel Fire Water Pump, and the Lime Kiln Auxiliary Drive.

The Mill Emergency Diesel Generator is subject to 40 CFR Part 63, Subpart ZZZZ but is exempt from requirements of Subpart ZZZZ, because it is considered an existing emergency stationary RICE with a rating of more than 500 hp located at a major source of HAP emissions and it does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR §63.6640(f)(2)(ii) and (iii). Operation of the Mill Emergency Diesel Generator such that it exceeds the allotted 15 hours under §63.6640(f)(2)(ii) and (iii) would cause the generator to be subject to all applicable requirements of 40 CFR Part 63, Subpart ZZZZ.

The Lift Pump Emergency Generator is not subject to any requirements of 40 CFR Part 63, Subpart ZZZZ, except for the Initial Notification requirements of §63.6645(f). [40 CFR §63.6590(b)(1)(i)]

The Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, and Diesel Fire Water Pump are considered existing, stationary, reciprocating, internal combustion engines at a major HAP source and are not subject to NSPS regulations. These units shall be limited to the usage outlined in 40 CFR §63.6640(f) and therefore are classified as existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all applicable requirements listed in §63.6640(f) may cause any of these engines to be considered non-emergency engines and subject to all requirements applicable to non-emergency engines.

The Lime Kiln Auxiliary Drive is considered an existing, non-emergency, stationary, reciprocating, internal combustion engine at a major HAP source and is not subject to NSPS regulations. The unit is rated for less than 100 hp.

40 CFR Part 63, Subpart ZZZZ Requirements

| Units | Compliance Dates | Operating Limitations* (40 CFR §63.6602(a) and Table 2(c)) |
|---|--------------------------------|--|
| <i>Compression ignition (diesel, fuel oil) units:</i> - Cogen Emergency Diesel Generator - R15 Emergency Diesel Generator - Diesel Fire Water Pump | No later than May 3, 2013 | - Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. |
| <i>Spark ignition (natural gas) units:</i> - Lime Kiln Auxiliary Drive | No later than October 19, 2013 | - Change oil and filter every 1,440 hours of operation or annually, whichever comes first; - Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. |

* Due to the 500 hour operation limit on the Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, and Diesel Fire Water Pump, the inspections and oil/filter changes shall be performed annually to meet the requirements of 40 CFR Part 63, Subpart ZZZZ.

The generators and engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or Rumford Paper Company shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of each generator or engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

Rumford Paper Company has the option of utilizing an oil analysis program which complies with the requirements of 40 CFR §63.6625(i) in order to extend the specified oil change requirement. If this option is used, Rumford Paper Company must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each unit. The analysis program must be part of the maintenance plan for each generator or engine. [40 CFR §63.6625(i)]

A non-resettable hour meter shall be installed and operated on each generator and engine. [40 CFR §63.6625(f)]

During periods of startup, the facility must minimize each engine's time spent at idle and minimize the engine's startup time to a period needed for

appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2c]

The Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, and Diesel Fire Water Pump shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

Rumford Paper Company shall keep records that include maintenance conducted on the generators and engines and the hours of operation of each unit recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the units are operated during a period of demand response or deviation from standard voltage or frequency or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the Mill must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

If an emergency stationary RICE operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the Mill shall comply with the reporting requirements in 40 CFR §63.6650(h) for the specific unit. [40 CFR §63.6650(h)]

3. Control Equipment

There are no control equipment devices installed on any of the generators/engines at the facility.

4. Emission Limits and Streamlining

For the Lift Pump Emergency Generator and the Mill Emergency Generator, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. The origin and authority

of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following tables.

Lift Pump Emergency Generator Emission Limits

| <u>Pollutant, Units</u> | <u>Applicable Emission Standards</u> | <u>Origin and Authority</u> | <u>Emission Limits</u> |
|-------------------------------|---|--|------------------------|
| PM, g/kW-hr | 0.20 g/kW-hr | 40 CFR Part 60, Subpart III §60.4205(b) | 0.20 g/kW-hr |
| PM, lb/MMBtu | 0.12 lb/MMBtu | 06-096 CMR 103, Section 2(B)(1)(a) | 0.05 lb/MMBtu |
| | 0.05 lb/MMBtu | BACT A-214-77-5-A (February 29, 2008) | |
| PM, lb/hr | 0.26 lb/hr | BACT A-214-77-5-A (February 29, 2008) | 0.26 lb/hr |
| PM ₁₀ , lb/hr | 0.26 lb/hr | | 0.26 lb/hr |
| SO ₂ , lb/MMBtu | 2.0 lb/MMBtu <i>(based on 2% S)</i> | 06-096 CMR 106, Section 2(A)(2) | 0.0015 lb/MMBtu |
| | 0.0015 lb/MMBtu <i>(based on 15 ppm S)</i> | 40 CFR Part 60, Subpart III §60.4207(b) | |
| SO ₂ , lb/hr | 0.01 lb/hr | 06-096 CMR 140, BPT | 0.01 lb/hr |
| NO _x +VOC, g/kW-hr | 6.4 g/kW-hr | 40 CFR Part 60, Subpart III §60.4205(b) | 6.4 g/kW-hr |
| NO _x +VOC, lb/hr | 8.20 lb/hr | 06-096 CMR 140, BPT | 8.20 lb/hr |
| CO, g/kW-hr | 3.5 g/kW-hr | 40 CFR Part 60, Subpart III §60.4205(b) | 3.5 g/kW-hr |
| CO, lb/hr | 4.48 lb/hr | 06-096 CMR 140, BPT | 4.48 lb/hr |

| <u>Pollutant, Units</u> | <u>Applicable Emission Standards</u> | <u>Origin and Authority</u> | <u>Emission Limits</u> |
|-------------------------------|---|--|---|
| Visible Emissions | 20% opacity during the acceleration mode | 40 CFR Part 60, Subpart III §60.4205(b) | 20% opacity during acceleration mode |
| | 15% opacity during the lugging mode | | 15% opacity during lugging mode |
| | 50% opacity during the peaks in either acceleration or lugging mode | | 50% opacity during peaks in either acceleration or lugging mode |
| Visible Emissions (continued) | 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period | 06-096 CMR 101, Section 2(B)(1)(d) | 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period |

Mill Emergency Diesel Generator Emission Limits

| Pollutant, Units | Applicable Emission Standards | Origin and Authority | Licensed Emission Limits |
|-----------------------------|---|---|--|
| PM, lb/MMBtu | 0.12 lb/MMBtu | 06-096 CMR 103, Section 2(B)(1)(a) | 0.12 lb/MMBtu |
| PM/PM ₁₀ , lb/hr | 0.65 lb/hr | 06-096 CMR 140, BPT | 0.65 lb/hr |
| SO ₂ , lb/MMBtu | 2.0 lb/MMBtu <i>(based on 2% S)</i> | 06-096 CMR 106, Section 2(A)(2) | 0.0015 lb/MMBtu |
| | 0.0015 lb/MMBtu <i>(based on 0.0015% S)</i> | 06-096 CMR 140, BPT | |
| SO ₂ , lb/hr | 0.01 lb/hr | 06-096 CMR 140, BPT | 0.01 lb/hr |
| NO _x , lb/MMBtu | 3.2 lb/MMBtu | AP-42, Table 3.3-1 (10/96); | 3.2 lb/MMBtu |
| NO _x , lb/hr | 17.41 lb/hr | 06-096 CMR 140, BPT | 17.41 lb/hr |
| CO, lb/MMBtu | 0.85 lb/MMBtu | AP-42, Table 3.3-1 (10/96); | 0.85 lb/MMBtu |
| CO, lb/hr | 4.62 lb/hr | 06-096 CMR 140, BPT | 4.62 lb/hr |
| VOC, lb/MMBtu | 0.09 lb/MMBtu | AP-42, Table 3.3-1 (10/96); | 0.09 lb/MMBtu |
| VOC, lb/hr | 0.49 lb/hr | 06-096 CMR 140, BPT | 0.49 lb/hr |
| Visible Emissions | 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period | 06-096 CMR 101, Section 2(B)(1)(d) | 20% opacity on a six-minute block avg. basis, except for no more than two six-minute block averages in a three-hour period |

Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, and Diesel Fire Water Pump Emission Limits

The following applies to each of these three generator units:

| Pollutant, Units | Applicable Emission Standards per Unit | Origin and Authority | Licensed Emission Limits |
|---------------------------------|--|--|---------------------------------|
| PM, PM ₁₀ , lb/MMBtu | 0.31 lb/MMBtu | AP-42 Table 3.3-1 (10/96) | 0.31 lb/MMBtu |
| SO ₂ , lb/MMBtu | 2.0 lb/MMBtu <i>(based on 2% S)</i> | 06-096 CMR 106, Section 2(A)(2) | 0.0015 lb/MMBtu |
| | 0.0015 lb/MMBtu <i>(based on 0.0015% S)</i> | 06-096 CMR 140, BPT | |

| <u>Pollutant, Units</u> | <u>Applicable Emission Standards per Unit</u> | <u>Origin and Authority</u> | <u>Licensed Emission Limits</u> |
|----------------------------|--|---|--|
| NO _x , lb/MMBtu | 4.41 lb/MMBtu | AP-42, Table 3.3-1 (10/96) | 4.41 lb/MMBtu |
| CO, lb/MMBtu | 0.95 lb/MMBtu | AP-42, Table 3.3-1 (10/96) | 0.95 lb/MMBtu |
| VOC, lb/MMBtu | 0.35 lb/MMBtu | AP-42, Table 3.3-1 (10/96) | 0.35 lb/MMBtu |
| Visible Emissions | 20% opacity on a six-minute block average basis, except for no more than 40 two six-minute block averages in a three-hour period | 06-096 CMR 101, Section 2(B)(1)(d) | 20% opacity on a six-minute block average basis, except for no more than 40 two six-minute block averages in a three-hour period |

Lime Kiln Auxiliary Drive Emission Limits

| <u>Pollutant, Units</u> | <u>Applicable Emission Standards</u> | <u>Origin and Authority</u> | <u>Licensed Emission Limits</u> |
|---------------------------------|--|---|--|
| PM, PM ₁₀ , lb/MMBtu | 0.0384 lb/MMBtu | AP-42, Table 3.2-1 (dated 7/00) | 0.0384 lb/MMBtu |
| SO ₂ , lb/MMBtu | 0.000588 lb/MMBtu | AP-42, Table 3.2-1 (dated 7/00) | 0.000588 lb/MMBtu |
| NO _x , lb/MMBtu | 1.94 lb/MMBtu | AP-42, Table 3.2-1 (dated 7/00) | 1.94 lb/MMBtu |
| CO, lb/MMBtu | 0.353 lb/MMBtu | AP-42, Table 3.2-1 (dated 7/00) | 0.353 lb/MMBtu |
| VOC, lb/MMBtu | 0.12 lb/MMBtu | AP-42, Table 3.2-1 (dated 7/00) | 0.12 lb/MMBtu |
| Visible Emissions | 20% opacity on a six-minute block average basis, except for no more than 40 two six-minute block averages in a three-hour period | 06-096 CMR 101, Section 2(B)(1)(d) | 20% opacity on a six-minute block average basis, except for no more than 40 two six-minute block averages in a three-hour period |

Emissions, in lb/hour, from the emission units identified below shall not exceed the following: [06-096 CMR 140, BPT]

Lb/Hour Limits for Generators and Engines

| <u>Equipment</u> | <u>Units</u> | <u>PM</u> | <u>PM₁₀</u> | <u>SO₂</u> | <u>NO_x</u> | <u>CO</u> | <u>VOC</u> |
|----------------------------------|--------------|-----------|------------------------|-----------------------|-----------------------|-----------|------------|
| Cogen Emergency Diesel Generator | lb/hr | 0.47 | 0.47 | 0.002 | 6.44 | 1.39 | 0.51 |
| R15 Emergency Diesel Generator | | 0.37 | 0.37 | 0.002 | 5.38 | 1.16 | 0.43 |
| Diesel Fire Water Pump | | 0.50 | 0.50 | 0.002 | 7.06 | 1.52 | 0.56 |

| <u>Equipment</u> | <u>Units</u> | <u>PM</u> | <u>PM₁₀</u> | <u>SO₂</u> | <u>NO_x</u> | <u>CO</u> | <u>VOC</u> |
|---------------------------|--------------|-----------|------------------------|-----------------------|-----------------------|-----------|------------|
| Lime Kiln Auxiliary Drive | | 0.02 | 0.02 | negl. | 1.16 | 0.21 | 0.07 |

5. NO_x RACT

All emergency generators and engines are restricted to no more than 500 hours per year of operation each. Rumford Paper Company has accepted a license restriction on the hours of operation for each of the emergency generators and engines to maintain the NO_x emissions under 10 ton/year, thereby exempting the units from any requirements for NO_x emissions control as specified by 06-096 CMR 138. [06-096 CMR 138 (1)(B)]

The Lime Kiln Auxiliary Drive has the potential to emit less than 10 tpy of NO_x, thereby exempting the unit from any NO_x emission control requirements under 06-096 CMR 138. [06-096 CMR 138 (1)(B)(1)]

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with the generators and engines shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

7. Periodic Monitoring

Rumford Paper Company shall monitor and record parameters for each generator or engine as indicated in the following table.

| <u>Parameter</u> | <u>Units of Measure</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> | |
|---------------------|-------------------------|-------------------------------------|--|---------------|
| | | | <u>Monitor</u> | <u>Record</u> |
| Fuel sulfur content | Percent, by weight | Fuel purchase records from supplier | As fuel is purchased, documented semi-annually | |
| Operating time | Hours | Hour Meter | Annually | |

8. Parameter Monitors

There are no Parameter Monitors required for the generators and engines.

9. CEMS and COMS

There are no CEMS or COMS required for the generators and engines.

Y. Methanol and Oil Storage Tanks

The Mill utilizes the following methanol and oil storage tanks:

- One 20,000 gallon (75.7 m³), above-ground Methanol Storage Tank located in a below-grade vault that provides secondary containment;

- Two above-ground storage tanks (Steam Plant Day Tanks) for #6 fuel oil, each with a nominal capacity of 20,000 gallons (75.7 m³); and
- One 640,000 gallon (2,423 m³), above-ground storage tank (#6 Oil Bulk Storage Tank) for #6 fuel oil.

New Source Performance Standards (NSPS)

The Methanol Storage Tank and Steam Plant Day Tanks are not subject to 40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*, because a tank having a capacity between 75-151 m³ storing a liquid with a maximum true vapor pressure less than 15 kPa is specifically exempted from this Subpart per 40 CFR Part 60, §60.110b (b). If the maximum true vapor pressure of the methanol or #6 oil within the tank becomes greater than 15.0 kPa, the Mill shall be subject to the monitoring of operations requirements of 40 CFR Part 60, Subpart Kb. [40 CFR Part 60, §60.116b]

The #6 Bulk Storage Tank is not subject to 40 CFR Part 60, Subpart Kb, because a tank having a capacity greater than 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kPa is specifically exempted from this Subpart, per 40 CFR Part 60, §60.110b (b). If the maximum true vapor pressure of the #6 oil within the tank becomes greater than 15.0 kPa, the Mill shall be subject to the monitoring of operations requirements of 40 CFR Part 60, Subpart Kb. [40 CFR Part 60, §60.116b]

Z. Waste Water Treatment Facility

Rumford Paper Company operates a waste water treatment facility. The Mill's wastewater treatment facility is regulated under a Maine Pollution Discharge Elimination System (MPDES) license/Maine Waste Discharge License (WDL). The operational practice of the treatment facility under these programs constitutes control of VOC emissions and thus was determined to be meeting VOC RACT.

AA. Parts Washers

Rumford Paper Company operates several parts washers. Based on the solvent used, each parts washer may be subject to the requirements of *Solvent Degreasers*, 06-096 CMR 130 (as amended). Periodic monitoring for the applicable parts washers shall consist of recordkeeping including records of solvent added and removed for each unit.

BB. Facility Annual Emissions

1. Total Annual Emissions

Rumford Paper Company is licensed for the following annual emissions. Calculation of these annual emission rates was based on constant operation of each emission unit at its maximum licensed capacity, including those limited either by firing rate, hours of operation, or via an annual fuel use cap.

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

| <u>Unit</u> | <u>PM</u> | <u>PM₁₀</u> | <u>SO₂</u> | <u>NO_x</u> | <u>CO</u> | <u>VOC</u> |
|---------------------------------|--------------|------------------------|-----------------------|-----------------------|----------------|--------------|
| Power Boiler #3 | 65.7 | 65.7 | 341.6 | 525.6 | 262.8 | 19.7 |
| Cogen Boiler #6 | 82.8 | 82.8 | 772.6 | 1,655.6 | 1,090.0 | 22.1 |
| Cogen Boiler #7 | 82.8 | 82.8 | 772.6 | 1,655.6 | 1,090.0 | 22.1 |
| Lime Kiln | 105.1 | 105.1 | 100.7 | 227.8 | 170.8 | 8.8 |
| Recovery Boiler C | 379.7 | 284.7 | 903.6 | 941.7 | 972.4 | 16.2 |
| Smelt Tank C | 70.1 | 69.2 | 24.1 | -- | -- | -- |
| R10 Air Flootation Dryers | 15.2 | 15.2 | 0.1 | 19.6 | 2.7 | 0.7 |
| Building Air Heaters | 2.0 | 2.0 | 0.2 | 40.6 | 40.6 | 2.2 |
| Cogen Emergency Generator | 0.1 | 0.1 | 0.1 | 1.6 | 0.4 | 0.1 |
| R15 Emergency Generator | 0.1 | 0.1 | 0.1 | 1.4 | 0.3 | 0.1 |
| Mill Emergency Diesel Generator | 0.2 | 0.2 | 0.1 | 4.4 | 1.2 | 0.1 |
| Diesel Fire Water Pump | 0.1 | 0.1 | 0.1 | 1.8 | 0.4 | 0.1 |
| Lift Pump Emergency Generator | 0.1 | 0.1 | 0.1 | 2.1 | 1.1 | 2.1 |
| Lime Kiln Auxiliary Drive | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 |
| Groundwood Operations | -- | -- | -- | -- | -- | 36.0 |
| Total TPY | 804.1 | 708.2 | 2,916.1 | 5,078.1 | 3,632.8 | 130.4 |

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 limits; 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; Rumford Paper Company is above the major source threshold of 100,000 tons of CO₂e per year.

III. AMBIENT AIR QUALITY ANALYSIS

Rumford Paper Company previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. [See NO_x modeling results in license A-214-71-AN-A (April 9, 2002) and modeling results for other pollutants in license A-214-71-S-A/R (September 3, 1996).] An additional ambient air quality analysis is not required for this Part 70 License.

ORDER

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

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

The Department hereby grants the Part 70 License A-214-70-G-R/A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to Rumford Paper Company pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact accompanying this Order. As such, the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements of 06-096 CMR 115 for making such changes and pursuant to the applicable requirements of 06-096 CMR 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only.**

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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 STATEMENTS

- (1) 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 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 CMR 140]
- (4) 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 140]
- (5) Notwithstanding any other provision 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 140]
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
 - A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated November 15, 2007. [06-096 CMR 140]

| <u>Source</u> | <u>Citation</u> | <u>Description</u> | <u>Basis for Determination</u> |
|---|----------------------|---|---|
| Facility | 06-096 CMR 107 | Sulfur Dioxide Standards for Sulfite Pulp Mills | Facility is not a sulfite pulp mill. |
| Facility | 06-096 CMR 111 | Petroleum Liquid Vapor Storage Control | Fuel oil stored at the facility has a vapor pressure below threshold. |
| Paper Machines & On-Machine Coaters | 06-096 CMR 123 | Control of VOC from Paper, Film and Foil Coating | All coatings used contain VOC content less than 2.9 lbs VOC/gallon. |
| Paper Machines | 06-096 CMR 134 | VOC RACT | Emissions from paper machine areas are exempt. |
| Boilers #3, #6, #7 | 06-096 CMR 156 | CO ₂ Budget Trading Program | Boiler #3 does not meet the definition of a CO ₂ Budget Unit. Cogen Boilers #6 and #7 qualify for the limited exemption under Section 1.A.4. |
| Boiler #3, RBC | 40 CFR 60 Subpart D | NSPS for Fossil-Fuel-Fired Steam Generating Units | #3 commenced construction prior to August 17, 1971 applicability date; and does not apply to RBC since fossil fuel annual capacity factor is less than 10%. |
| Boilers #3, #6, #7, RBC | 40 CFR 60 Subpart Da | NSPS for Electric Utility Steam Generating Units | These boilers do not meet the definition of an electric utility. |
| Boiler #3, RBC | 40 CFR 60 Subpart Db | NSPS for Industrial-Commercial-Institutional Steam Generating Units | Commenced construction prior to June 19, 1984 applicability date. |
| Boilers #3, #6, #7, RBC | 40 CFR 60 Subpart Dc | NSPS for Steam Generating Units less than 100 MMBtu/hr | Units are greater than 100 MMBtu/hour. |
| Boilers #3, #6, #7 | 40 CFR 60 Subpart E | NSPS for Incinerators | Units do not burn solid waste consisting of more than 50% municipal waste. |
| Methanol Storage Tank, #6 oil storage tanks (3) | 40 CFR 60 Subpart Kb | NSPS for Volatile Organic Liquid Storage Vessels | Max. true vapor pressure less than applicable threshold for the storage tank capacity |
| Coal Handling | 40 CFR 60 Subpart Y | NSPS for Coal Preparation Plants | Facility is not a coal preparation plant |

| <u>Source</u> | <u>Citation</u> | <u>Description</u> | <u>Basis for Determination</u> |
|--|----------------------------|---|---|
| Lime Slaker | 40 CFR 60 Subpart BB | NSPS for Kraft Pulp Mills | Not an applicable source under the regulation. |
| Batch Digesters #5-#10 & Kamyrr Digester | 40 CFR 60 Subpart BB | NSPS for Kraft Pulp Mills | Manufactured prior to 1976 applicability date |
| Softwood Washer System | 40 CFR 60 Subpart BB | NSPS for Kraft Pulp Mills | Installed prior to 1976 applicability date |
| Facility | 40 CFR 60 Subpart RR | Pressure Sensitive Tape and Label Surface Coating | No applicable sources at this facility |
| Cogen, R15, Mill, & Fire Pump Generators | 40 CFR 60 Subpart IIII | NSPS for Stationary Compression Ignition Internal Combustion Engine | Manufactured prior to April 1, 2006 applicability date |
| Lime Kiln Auxiliary Drive | 40 CFR 60 Subpart JJJJ | NSPS for Spark Ignition Internal Combustion Engine | Manufactured prior to April 1, 2006 applicability date |
| Paper Machines & On-Line Coaters | 40 CFR 63 Subpart JJJJ | NESHAPs for Paper and Other Web Coating | Function as part of in-line papermaking system used to form paper substrate |
| RBC | 40 CFR 63 Subpart DDDDD | NESHAPs for Industrial, Commercial, Institutional Boilers and Process Heaters | Unit already subject to 40 CFR Part 63, Subpart MM |
| Boilers #3, #6, #7 | 40 CFR Parts 72 - 78 | EPA Acid Rain Program | Facility is not an electric utility unit. |

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
- A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;
 - B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
 - C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
 - D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 CMR 140]

- (8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 CMR 140]

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 and this license (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, as defined in 06-096 CMR 100, unless specifically provided for in 06-096 CMR 140. [06-096 CMR 140]
- (3) 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 140] **Enforceable by State-only**
- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A.
- (5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 140] **Enforceable by State-only**
- (6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written

request or in accordance with other provisions of this license.
[06-096 CMR 140]

- (7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, 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 the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 CMR 140]
- (8) 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 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;
 - 2. to demonstrate compliance with the applicable emission standards; or
 - 3. 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 140] **Enforceable by State-only**
- (9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates 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 140] **Enforceable by State-only**

- (10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

- A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation.
- B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. §349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

- C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 CMR 140]

- (11) Upon the written request of 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 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 140]
- (12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]
- (13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
- A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
 - B. The compliance status;
 - C. Whether compliance was continuous or intermittent;
 - D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - E. Such other facts as the Department may require to determine the compliance status of the source.
- [06-096 CMR 140]

SPECIFIC CONDITIONS

(14) **Facility-Wide Fuel Specifications**

A. #6 Fuel Oil

The following fuel sulfur content requirements are applicable to those units without specific licensed limits as stated in the Findings of Fact of this license.

1. Prior to January 1, 2018, or by the date otherwise stated in 38 MRSA §603-A(1) and (2), the sulfur content of the #6 fuel oil fired at Rumford Paper Company shall not exceed 2.0% by weight. [06-096 CMR 106]
2. Beginning January 1, 2018, or by the date otherwise stated in 38 MRSA §603-A(1) and (2), the #6 fuel oil fired at the facility shall not exceed a maximum sulfur content limit of 0.5% by weight. [38 MRSA §603-A(1) and (2)]

B. #2 Fuel Oil

The following fuel sulfur content requirements are only applicable to those units without specific licensed limits as stated in the Findings of Fact of this license.

1. Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired at Rumford Paper Company shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). [06-096 CMR 140, BPT]
2. Beginning July 1, 2016, or on the date specified in 38 MRSA §603-A(2)(A)(3), the #2 fuel oil fired at the facility shall not exceed a maximum sulfur content limit of 0.005% by weight (50 ppm) [38 MRSA §603-A(2)(A)(3)].
3. Beginning January 1, 2018, or on the date specified in 38 MRSA §603-A(2)(A)(3), #2 fuel oil fired at the facility shall not exceed a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]

C. Fuel Sulfur Content Compliance

Fuel sulfur content compliance shall be demonstrated by fuel oil analysis of the bulk fuel oil storage tanks if the fuel is blended on-site, or by fuel purchase records demonstrating that the maximum sulfur content delivered is at or below the applicable sulfur content limits listed above. [06-096 CMR 140, BPT]

(15) **Emissions Offset Credits** [A-214-77-11-O (February 27, 2013)]

- A. Rumford Paper Company was granted certification of 204.5 tons of NO_x Offset Credits under 06-096 CMR 113. The credits were generated as a direct result of the Power Boiler #5 shutdown at the facility. Power Boiler #5 shall not operate and shall remain physically decommissioned so as to render it inoperable.
- B. Rumford Paper Company shall notify the Department in writing of any sale or transfer of these credits within 30 days of such sale or transfer.

(16) **Power Boiler #3**

A. Fuels

1. Power Boiler #3 is licensed to fire #6 fuel oil, specification and off-specification oil, natural gas, LVHC gases, HVLC gases, and Stripper Off-Gases (SOGs). [06-096 CMR 140, BPT]

2. The Mill shall keep records of the sulfur content for all fuel oil fired in Boiler #3. [06-096 CMR 140, BPT]

B. Emission Limits

1. Emissions from Boiler #3 shall not exceed the following limits [A-217-70-H-A (April 15, 2008), BACT]:

| Pollutant | lb/MMBtu | Fuel | Averaging Time | Origin and Authority |
|------------------|----------|--|------------------------|---------------------------------|
| PM | 0.03 | Natural gas only | ** | A-214-71-AC-A (4/10/1998), BACT |
| | 0.05 | Any combination of fuels <u>other than</u> 1) natural gas only <u>or</u> 2) oil with any two or more of LVHCs, SOGs, HVLCs | | A-214-71-O-A (2/12/1993), BACT |
| | 0.08 | Fuel oil with any two or more of LVHCs, SOGs, HVLCs | | A-214-70-A-I (7/30/2003), BACT |
| PM ₁₀ | 0.03 | Natural Gas Only | ** | A-214-71-AC-A (4/10/1998), BACT |
| | 0.05 | Any combination of fuels <u>other than</u> 1) natural gas only <u>or</u> 2) oil with any two or more of LVHCs, SOGs, HVLCs | | A-214-71-O-A (2/12/1993), BACT |
| | 0.08 | Fuel oil with any two or more of LVHCs, SOGs, HVLCs | | A-214-70-A-I (7/30/2003), BACT |
| SO ₂ | 0.26 | Any Fuel Combination | 24-hr block average | A-214-71-O-A (2/12/1993), BACT |
| NO _x | 0.40 | Any Fuel Combination | 30-day rolling average | A-214-71-O-A (2/12/1993), BACT |
| | 0.20 | Natural Gas Only | | A-214-71-AC-A (4/10/1998), BACT |
| CO | 0.20 | Any Fuel Combination | ** | A-214-71-O-A (2/12/1993), BACT |
| VOC | 0.015 | | | |

| Pollutant | lb/hour | Fuel | Avg. Time | Origin and Authority |
|-----------|---------|---|-----------|--------------------------------|
| PM | 15.0 | Any combination of fuels <u>other than</u> oil with any two or more of LVHCs, SOGs, HVLCs | ** | A-214-71-O-A (2/12/1993), BACT |
| | 24.0 | Fuel oil with any two or more of LVHCs, SOGs, HVLCs | | A-214-70-A-I (7/30/2003), BACT |

| Pollutant | lb/hour | Fuel | Avg. Time | Origin and Authority |
|------------------|---------|---|------------------------|--------------------------------|
| PM ₁₀ | 15.0 | Any combination of fuels <u>other than</u> oil with any two or more of LVHCs, SOGs, HVLCs | ** | A-214-71-O-A (2/12/1993), BACT |
| | 24.0 | Fuel oil with any two or more of LVHCs, SOGs, HVLCs | | A-214-70-A-I (7/30/2003), BACT |
| SO ₂ | 78.0* | Any Fuel Combination | 3-hr block | A-214-71-O-A (2/12/1993), BACT |
| NO _x | 120.0 | | 30-day rolling average | |
| CO | 60.0 | | ** | |
| VOC | 4.5 | | | |

* The SO₂ emission standard established as BACT/BPT is 78.0 lb/hour with the following conditions:

- a. When Boiler #6 and/or #7 SO₂ emissions are above 352.8 lb/hour per Condition (17)(C)(b) or (17)(C)(d), SO₂ emissions from the stack for Boiler #3 shall be limited to a total of 60.0 lb/hour on a 3-hour block average basis.
- b. When the Recovery Boiler C SO₂ emissions are above 206.3 lb/hour per Condition (19)(C)(c), SO₂ emissions from the stack for Boiler #3 shall be limited to a total of 60.0 lb/hour on a 3-hour block average basis.

** Per emission testing compliance demonstration method

[06-096 CMR 115 and 140, BPT]

2. Visible emissions from the Power Boiler #3 stack shall not exceed 20% opacity on a six-minute block average basis, except no more than one six-minute block average in a one-hour block period. [A-214-71-S-A/R (9/3/1996), BACT/BPT]

C. NESHAPs 40 CFR Part 63, Subpart DDDDD

1. By January 31, 2016, or no later than the date established per a request for a compliance date extension made in accordance with 40 CFR §63.6(i), the Mill shall comply with all requirements of 40 CFR Part 63, Subpart DDDDD as applicable to Boiler #3. [40 CFR §63.7495(b)]

Note that if the status of the Final Rule (Boiler MACT Final Rule of January 31, 2013) should change, the compliance date may also change.

2. The facility shall complete an initial tune-up of Boiler #3 according to the procedures in §63.7540(a)(10)(i) through (vi) no later than January 31, 2016, or the initial tune-up due date established through the facility's compliance date extension request. [40 CFR §63.7510(e)]
3. Subsequent tune-ups must be conducted at the frequency specified by Subpart DDDDD and as specified in §63.7540. [40 CFR §63.7510(e)]
4. Rumford Paper Company shall comply with all applicable monitoring requirements as specified in Table 4 to 40 CFR 63, Subpart DDDDD.
5. Performance testing to demonstrate compliance shall be conducted according to the EPA test methods prescribed in Table 5 to 40 CFR 63, Subpart DDDDD. The 30-day average operating load of Boiler #3 must be maintained such that it does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test. [#8 of Table 4 to 40 CFR Part 63, Subpart DDDDD]
6. At the specified compliance date established per 40 CFR §63.7595, Rumford Paper Company shall comply with both the emission limits established by this air emission license and the applicable emission limits for specific pollutants contained in 40 CFR Part 63, Subpart DDDDD. For those pollutants which are limited both by the license and by Subpart DDDDD, the facility shall comply with both limits.

D. Control Equipment

The Mill shall continue to operate the low NO_x burners and the flue gas recirculation system in Boiler #3 and shall operate the Venturi Scrubber System to control emissions from Boiler #3. Flue gas recirculation system downtime shall not be considered pollution control equipment downtime if it does not exceed 5% of boiler operating time per quarter (excluding downtime for soot blows). The Mill need not operate the associated Venturi Scrubber System for those periods of time when Boiler #3 is firing natural gas only. [06-096 CMR 140, BPT]

E. Compliance Methods

Compliance with the emission limits associated with Power Boiler #3 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

| Pollutant | Emission Limits | Compliance Method | Frequency |
|----------------------|---------------------------|--|--|
| PM, PM ₁₀ | lb/MMBtu limits | PM: Stack Testing: 40 CFR Part 60, App. A, Method 5B PM ₁₀ : Stack Testing: 40 CFR Part 60, App. A, Method 5 | PM: Once every two qualifying operating years*, or more frequently as requested by the Department PM ₁₀ : As requested |
| | lb/hr limits | | |
| SO ₂ | lb/MMBtu limit | SO ₂ CEMS, 24-hour block average basis | Continuously, in accordance with 06-096 CMR 117 |
| | lb/hr limit | SO ₂ CEMS, 3-hour block average basis | |
| NO _x | lb/MMBtu and lb/hr limits | NO _x CEMS, 30-day rolling average basis | Continuously, in accordance with 06-096 CMR 117 |
| CO | lb/MMBtu and lb/hr limits | Stack Testing: 40 CFR Part 60, Appendix A, Method 10 | As requested |
| VOC | lb/MMBtu and lb/hr limits | Stack Testing: 40 CFR Part 60, Appendix A, Method 25 or 25A | As requested |

* Compliance with the lb/MMBtu particulate matter limits shall be demonstrated by stack testing performed on the boiler once every two qualifying operating years. For the purposes of this requirement, a qualifying operating year for an individual boiler is any calendar year in which the boiler was operated for at least 876 hours. The facility shall maintain records of boiler use and keep a running total of the operating hours for each calendar year. [A-214-70-F-A & A-214-77-4-A (December 26, 2007); 06-096 CMR 140, BPT]

F. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes fuel use records and fuel analysis records. Periodic monitoring for Boiler #3 shall also include the following whenever the equipment is operating.

| Parameter | Units | Monitoring Tool/Method | Frequency |
|----------------------------|-------------------|-------------------------------------|--|
| #6 Fuel oil firing rate | gpm | Fuel flow meter | Continuously, recorded hourly |
| #6 Fuel oil used | Gallons | Recordkeeping | Monthly and annually |
| #6 Fuel oil sulfur content | Percent by weight | Fuel purchase records from supplier | As fuel is purchased, documented semi-annually |
| Waste oil used | Gallons | Recordkeeping | Monthly and annually |
| Natural gas firing rate | MMscf/hour | Fuel flow meter | Continuously |
| Natural gas used | MMscf | Recordkeeping | Monthly and annually |

G. Parameter Monitoring

Parameter monitoring for Boiler #3 shall consist of the following:

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|---------------------|-------------------------------|--------------|------------------|
| | | | Monitor | Record |
| Scrubber pressure drop | in. of water column | Differential pressure monitor | Continuously | Every 15 minutes |
| Firing duration of LVHCs, HVLCs, and/or SOGs | minutes | Continuous log | | Once per shift |

H. Continuous Emissions Monitoring Systems (CEMS)

Rumford Paper Company shall operate and maintain the following continuous emission monitoring systems for Boiler #3 [06-096 CMR 138, NO_x RACT and 06-096 CMR 140, BPT]:

| CEMS | Units | Averaging Period | Origin and Authority |
|----------------------|--------------------|------------------------|-----------------------------------|
| NO _x CEMS | lb/MMBtu and lb/hr | 30-day rolling average | 06-096 CMR 117 and 06-096 CMR 138 |
| SO ₂ CEMS | lb/MMBtu | 24-hour block average | 06-096 CMR 106 and |
| | lb/hr | 3-hour block average | 06-096 CMR 117 |

(17) Cogen Boilers #6 and #7

A. Fuels

1. Cogen Boilers #6 and #7 are licensed to fire a combination of fuels including coal, biomass [including wood waste, Creosote-Treated Wood (CTW), mill waste, wastewater treatment plant sludge, Construction Demolition Debris (CDD), and waste papers], Tire Derived Fuel (TDF), Delayed Petroleum Coke (DPC), Lime Kiln Rejects, HVLCs, SOGs, LVHCs, Oil (including Specification Used oil, Off-Specification Used oil or fuel oil), and natural gas. [06-096 CMR 140, BPT]
2. The Mill shall keep records of the sulfur content for all fuel oil fired in Cogen Boilers #6 and #7. [06-096 CMR 140, BPT]
3. The Mill shall maintain records of the quantity of fuel consumed on a monthly and an annual basis. The facility shall also maintain records of fuel oil, waste oil, and natural gas consumed on a daily basis. [06-096 CMR 140, BPT]

B. Fuel Sulfur Content

1. The sulfur content of the fuel oil fired in Cogen Boiler #6 or Cogen Boiler #7 shall not exceed 2.5% by weight.
2. Sulfur content compliance shall be demonstrated by purchase records from the supplier.
 [06-096 CMR 140, BPT]

C. Emission Limits

1. Cogen Boilers #6 and #7 shall *each* not exceed the following emission limits. When firing multiple fuels, the NO_x, CO, SO₂, and VOC emission rates for Cogen Boilers #6 and #7 shall be calculated using a weighted average on a Btu basis. [A-214-71-O-A (2/12/1993), BACT]

| Pollutant | lb/MMBtu | Fuel | Averaging Time | Origin and Authority |
|------------------|-------------------|---|----------------|--|
| PM | 0.03 | Any Fuel Combination | ** | A-214-71-A-A (7/9/1986), BACT/BPT |
| PM ₁₀ | 0.03 | Any Fuel Combination | ** | A-214-71-E-A/R (7/18/1989), BACT/BPT |
| SO ₂ | 0.28 ^a | Any Fuel Combination other than coal, DPC, or TDF | 24-hr block | A-214-71-E-A/R (7/18/1989), BACT/BPT |
| | 0.32 ^a | Coal, DPC, or TDF Contribution | | |
| NO _x | 0.60 | Any Fuel Combination | 24-hr block | A-214-71-A-A (7/9/1986), BACT/BPT and A-214-71-AC-A (4/10/1998) BACT/BPT |
| | 0.30 | Fuel Oil Contribution | | |
| | 0.10 | Natural Gas Contribution | | |
| CO | 0.15 | Coal, DPC, or TDF | ** | A-214-71-A-A (7/9/1986), BACT/BPT |
| | 0.50 | Biomass or Natural Gas | | |
| | 0.03 | Fuel Oil Only | | |
| VOC | 0.008 | Any Fuel Combination | | A-214-71-O-A (2/12/1993), BACT/BPT |

| Pollutant | lb/hour (each boiler) | Fuel | Averaging Time | Origin and Authority |
|------------------|-----------------------------|----------------------|----------------|------------------------------------|
| PM | 18.9 | Any Fuel Combination | ** | A-214-71-O-A (2/12/1993), BACT/BPT |
| PM ₁₀ | 18.9 | | | |
| SO ₂ | 176.4 ^{b, c, d, e} | | 3-hr block | |
| NO _x | 378.0 | | 24-hr block | |
| CO | 248.85 | | ** | |
| VOC | 5.04 | | ** | |

** Per emission testing compliance demonstration method

- a. When Boiler #6 and/or Boiler #7 is/are firing only fuel oil or performing a gravimetric calibration, the monitored SO₂ lb/MMBtu emissions during that period shall not be included in determining the 24-hour block average SO₂ lb/MMBtu emission rate. The Mill shall keep records of the dates and times of all gravimetric calibrations and the date and time of any firing of only fuel oil in the Cogen Boilers.
- b. When Boiler #6 and/or Boiler #7 is/are firing only fuel oil or performing a gravimetric calibration, SO₂ emissions from the common stack for Cogen Boilers #6 and #7 shall be limited to a total of 500.0 lb/hour on a three-hour block average basis. The Mill shall keep records of the dates and times of all gravimetric calibrations and the date and time of any firing of only fuel oil in Cogen Boilers #6 and #7.
- c. When the Recovery Boiler C SO₂ emissions are above 206.3 lb/hour per Condition (19)(C)(c), SO₂ emissions from the common stack for Cogen Boilers #6 and #7 shall be limited to a total of 250.0 lb/hour on a three-hour block average basis.
- d. In addition to the limitations listed above, The Mill shall be determined to be in compliance when Boilers #6 or #7 exceed the 176.4 lb/hour (352.8 lb/hour combined) SO₂ limit provided all of the following conditions are met:
 - i. Either Boiler #6 or #7 is firing any of the following gas streams: SOGs, LVHCs, or HVLCs;
 - ii. SO₂ emissions from Cogen Boilers #6 and #7 combined do not exceed 500 lb/hour on a three-hour block average basis;
 - iii. SO₂ emissions from Recovery Boiler C do not exceed 206.3 lb/hour on a three-hour block average basis;
 - iv. SO₂ emissions from Boiler #3 does not exceed 60 lb/hour on a three-hour block average basis;
 - v. The Mill shall report the dates, times, and average SO₂ emissions for each three-hour block when Boilers #6 and/or #7 utilize these alternative limits.
- e. These alternative SO₂ limits as specified in (d) above shall not account for more than 4.0 ton/year of actual SO₂ emissions. Rumford Paper Company shall maintain records to document compliance with all SO₂ emission limits for these units.

[A-214-70-I-A (October 6, 2009)]

2. Visible emissions from the combined stack for Cogen Boilers #6 and #7 shall not exceed 20% on a six-minute average basis, except for no more than one six-minute block average in a one-hour period of not more than

27% opacity. This opacity standard shall apply at all times except during periods of startup or shutdown.

As of the effective date of 40 CFR Part 63, Subpart DDDDD applicability for these boilers, visible emissions shall not exceed the applicable standard as specified in Subpart DDDDD, demonstrated according to the applicable compliance demonstration method as specified in Subpart DDDDD.

3. Startups and Shutdowns: PM and Opacity of Emissions

For the purposes of this license (except for the standards and requirements of 40 CFR Part 63, Subpart DDDDD, which are subject to specific definitions for these terms), *Startup* and *Shutdown* shall be defined as follows: [06-096 CMR 140, BPT]

Startup includes the operational activities preceding and including the first fire of natural gas or fuel oil until the boiler has reached its rated temperature and pressure, is firing only solid fuel, and is sustaining over 75% rated load.

Cold Startup occurs after a boiler has been cooled from its rated operating pressure and temperature to a pressure of less than 50 psig. Typically, this occurs when a boiler has been taken offline for maintenance to perform a repair caused by a pressure part failure. A cold startup may require up to 36 hours for the boiler be brought online in a methodical manner to allow the metals and refractory to expand in a uniform manner to prevent mechanical damage and/or thermal shock to the boiler. The boiler may be started up without bed material if performing a refractory cure or with cold bed material as a result of being offline. The cold startup ends when the boiler has reached its rated temperature and pressure, is firing only solid fuel, and is sustaining over 75% rated load.

Shutdown means the operational activities leading to the cessation of operation of a boiler. Shutdown includes the process of decreasing boiler firing rate, decreasing solid fuel firing, and removing bed material until a boiler ceases operation with a Master Fuel Trip.

During periods of startup or shutdown, visible emissions shall comply with opacity limits specified in the following paragraphs. Compliance with the opacity limit shall be demonstrated by means of a COMS on the combined stack of Cogen Boilers #6 and #7. [40 CFR Part 60, Subpart Db and A-214-71-A-A (7/9/1986), BACT/BPT]

- a. When one of the two Cogen Boilers is in "normal" operation and the other has completed shutdown operations and is available for internal maintenance, visible emissions from the combined stack shall not

exceed 60% opacity on a six-minute block average basis. The Mill shall continue to operate the COMS and maintain records of opacity of emissions from the combined stack.

- b. The identified period of alternate opacity compliance for Cogen Boiler #6 and/or #7 shall comply with each of the following:
 - (1) The alternate opacity period due to cold startup shall not exceed a maximum period of 36 hours per boiler;
 - (2) All other alternate opacity periods due to startups or shutdowns shall not exceed a maximum period of 24 hours per boiler; and
 - (3) The period of alternate opacity compliance shall begin upon the first six-minute value that is recorded to be in excess of 20% opacity on a six-minute block average basis.
- c. When only one Cogen Boiler is in the process of startup or shutdown and the other is under "normal" operation, the Mill shall continuously monitor and record once every half-hour the following surrogate parameters indicative of boiler performance for the Cogen Boiler under "normal" operation:
 - (1) Boiler air/fuel ratio
 - (2) Boiler combustion O₂ trim control
 - (3) The operating ESP TR Set voltage and amperage

During a startup or a shutdown period, operation of the other boiler within the normal range of variation for the above parameters shall constitute compliance with the visible emission requirements of this license. Upon request from the Department, the Mill shall submit copies of the records for these parameters.

- d. *National Fire Protection Association (NFPA) 85 Boiler and Combustion Systems Hazards Code* (Section 7.6.2.5.4.3 of NFPA 85, edition 2011) requires that the ESP trip on interlock with a boiler Master Fuel Trip (MFT), which may result in unavoidable opacity exceedances. The code requirement is intended to prevent ignition of potentially explosive gases that may be present in the precipitator chamber following a boiler trip; therefore, when an affected unit experiences a MFT that is not the result of operator error or poor maintenance, it is a result of a malfunction as defined in 40 CFR §60.2. Thus, excess opacity during such events are not violations of the opacity standard set forth in 40 CFR Part 60, §60.43b(f). [40 CFR Part 60, §60.43b(g)]

D. NESHAPs 40 CFR Part 63, Subpart DDDDD (Boiler MACT)

Boiler MACT Effective Date

Unless the status of either the Final Rule for 40 CFR Part 60, Subpart DDDD; the Final Rule for 40 CFR Part 63, Subpart DDDDD; or the Final Rule for 40 CFR Part 241 changes, February 6, 2018, shall be the effective date of the waste-to-fuel switch for Cogen Boilers #6 and #7. Upon that date, Cogen Boilers #6 and #7 shall be in compliance with applicable requirements of 40 CFR Part 63, Subpart DDDDD. If EPA changes the classification of creosote-treated wood chips under the Final Rule for 40 CFR Part 60, Subpart DDDD, the Final Rule for 40 CFR Part 63, Subpart DDDDD, or the Final Rule for 40 CFR Part 241, the status of the boilers as existing CISWI units and the anticipated compliance date may also change. If the status of either Final Rule referenced here changes, the compliance date may also change. [40 CFR §63.7495(e)] These applicable requirements include the following:

1. Emission Limits [40 CFR Part 63, Subpart DDDDD Table 2]

On and after the waste-to-fuel effective date identified above, Rumford Paper Company shall comply with the applicable emission limits for specific pollutants in 40 CFR Part 63, Subpart DDDDD, Table 2. For those pollutants which are limited both by the license and by Boiler MACT, the facility shall comply with the more stringent limit. [40 CFR §63.7505(a)]

The emission limits shall apply at all times the affected unit is operating, except during periods of startup and shutdown, during which the source must comply only with applicable requirements of 40 CFR Part 63, Subpart DDDDD, Table 3. [40 CFR Part 63, Subpart DDDDD, §63.7500(f)]

2. For the purposes of the standards and requirements pursuant to Subpart DDDDD, the definitions of *startup* and *shutdown* shall be as defined in 40 CFR 63 Subpart DDDDD. [40 CFR Part 63, §63.7575]

3. Work Practice Standards and Operating Limits [40 CFR Part 63, Subpart DDDDD, Tables 3, 4, and 8]

- a. Rumford Paper Company shall conduct an initial tune-up of Cogen Boilers #6 and #7 according to the procedures specified in §63.7540 no later than the initial tune-up due date established per 40 CFR §63.7495.

Subsequent tune-ups must be conducted at the frequency specified by Subpart DDDDD and as specified in §63.7540. [40 CFR §63.7510(e)]

- b. The facility must have a one-time energy assessment performed by a qualified energy assessor. The energy assessment shall include the elements specified in Part 4 of Table 3 of Subpart DDDDD.

An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the aforementioned energy assessment requirements is valid. A facility that operates under an energy management program compatible with ISO 50001 that includes applicable boilers and process heaters satisfies the energy assessment requirements.

- c. To demonstrate proper ESP control of PM emissions according to Boiler MACT requirements, the Mill shall maintain visible emissions from the Cogen Boilers' stack at a level not to exceed 10% opacity (daily block average). Continuous compliance shall be demonstrated according to Table 8, #1, of Subpart DDDDD. [40 CFR Part 63, Subpart DDDDD, Table 4 and Table 8]
4. Performance testing for filterable PM (or TSM), HCl, Hg, and CO shall be conducted according to the specifics contained in Table 5 of 40 CFR Part 63, Subpart DDDDD.

The 30-day rolling average operating load of Cogen Boiler #6 and Cogen Boiler #7 shall be maintained such that it does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test. [40 CFR Part 63, Subpart DDDDD, Table 4]

5. Reporting requirements shall be in accordance with the applicable requirements of Table 9 of Subpart DDDDD.

E. Control Equipment

1. The Mill shall continue to operate and maintain the Multiple Cyclones and the Electrostatic Precipitator (ESP) to control emissions from Cogen Boilers #6 and #7. [06-096 CMR 140, BPT]
2. The circulating limestone bed used in SO₂ control must remove at least 90% of the potential SO₂ emissions. The averaging time for the 90% efficiency shall be a 30-day calculated rolling average. Compliance shall be documented through fuel use records, fuel sulfur content records, design information, and SO₂ CEMS data, as appropriate. [40 CFR Part 60, Subpart Db, § 60.42b(a) and A-214-71-O-A (2/12/1993), BACT]

F. Compliance Methods

Compliance with emissions limits listed above shall be demonstrated in accordance with the following methods and frequencies, or other methods and

frequencies as approved by the Department [A-214-77-8-M (August 24, 2009), A-214-70-A-I (October 6, 2009), and 06-096 CMR 140, BPT]:

| <u>Pollutant</u> | <u>Emission Limit</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|----------------------|--|---|---|
| PM, PM ₁₀ | lb/MMBtu limits and lb/hr limits | PM: Stack Testing 40 CFR Part 60, App. A, Method 5 PM ₁₀ : Stack Testing 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A | PM: Once every five years, or more frequently upon Department request PM ₁₀ : As requested |
| SO ₂ | lb/MMBtu limits | SO ₂ CEMS, 24-hour block average basis | Continuously, in accordance with 40 CFR Part 60, Appendix B |
| | lb/hour limits | SO ₂ CEMS, 3-hour block average basis | |
| NO _x | lb/MMBtu limits | NO _x CEMS, 24-hour block average basis | |
| | lb/hr limits | NO _x CEMS, 24-hour block average basis | |
| CO | lb/MMBtu limits and lb/hr limits | Stack Testing: 40 CFR Part 60, App. A, Method 10 | As requested |
| VOC | lb/MMBtu limits and lb/hr limits | Stack Testing: 40 CFR Part 60, App. A, Method 25 or 25A | As requested |
| Visible Emissions | Opacity Limits | COMS, six-minute block average basis | Continuously, in accordance with 40 CFR Part 60, Appendix B |

G. Periodic Monitoring

Rumford Paper Company shall monitor and record parameters for Cogen Boilers #6 and #7 and their associated air pollution control equipment, as indicated in the following tables, whenever the equipment is operating. [A-214-70-A-I (July 30, 2003) and 06-096 CMR 140, BPT]:

| Cogen Boilers #6 and #7 | | | |
|--------------------------------|-------------------------|-------------------------------------|--|
| <u>Parameter</u> | <u>Units of Measure</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> |
| Fuel oil firing rate | gpm | Fuel flow meter | Continuously, recorded daily |
| Fuel oil used | Gallons | Recordkeeping | Monthly and annually |
| Fuel oil sulfur content | Percent by weight | Fuel purchase records from supplier | As fuel is purchased, documented semi-annually |
| Waste oil used | Gallons | Recordkeeping | Monthly and annually |
| Solid fuel firing rate | MMBtu/hour | Fuel measurement devices | Continuously, recorded daily |
| Solid fuels used (each) | Tons (each) | Recordkeeping | Monthly and annually |
| Natural gas firing rate | MMscf/hour | Recordkeeping | Monthly and annually |
| Natural gas used | MMscf | Recordkeeping | Monthly and annually |
| Operating time | Hours | Boiler control system | Monthly and annually |

| ESP on Cogen Boilers #6 and #7 | | | | |
|--------------------------------|------------------|------------------------|--------------|-----------------|
| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
| | | | Monitor | Record |
| ESP Voltage | volts | volt meter | Continuously | every half hour |
| ESP Amperage | amps | amp meter | | |

For the purposes of the above tables, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

H. Parameter Monitors

In the event that only one of the two Cogen Boilers is in the process of startup or shutdown and the other is under "normal" operation, the Mill shall monitor and record the following additional parameter values indicative of boiler performance:

| Cogen Boilers #6 and #7 | | | | |
|---|------------------|------------------------|--------------|-----------------|
| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
| | | | Monitor | Record |
| Boiler air/fuel ratio | Air/fuel ratio | Boiler control system | Continuously | every half hour |
| Boiler combustion O ₂ trim control | % Oxygen content | Boiler control system | Continuously | every half hour |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

I. CEMS and COMS

For Cogen Boilers #6 and #7, the table below lists the required continuous emission monitoring systems (CEMS) and the continuous opacity monitoring systems (COMS).

| Continuous Monitor | Unit of Measurement | Averaging Period | Origin and Authority |
|----------------------|---------------------|------------------------|----------------------|
| NO _x CEMS | lb/MMBtu | 24-hour block average | 06-096 CMR 117 and |
| | lb/hr | 24-hour block average | 06-096 CMR 138 |
| SO ₂ CEMS | lb/MMBtu | 24-hour block average | 06-096 CMR 106 and |
| | lb/hr | 3-hour block average | 06-096 CMR 117 |
| Opacity COMS | % | 6-minute block average | 06-096 CMR 117 |

J. The entire biomass conveying system shall be enclosed. [A-214-71-O-A (2/12/1993), BACT]

- K. The coal railcars shall be unloaded within an unloading shed to a below grade receiving hopper equipped with a dust collection system sufficient to prevent visible emissions greater than 10% opacity. The coal shall be handled within an enclosed system, and there shall be no venting of the coal handling system other than via baghouses. [A-214-71-O-A (2/12/1993), BACT]

Visible emissions from the baghouses shall be limited to no more than 10% opacity on a six-minute block average basis except for no more than one six-minute block average per hour. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity. [06-096 CMR 101 (B)(3)(c)]

- L. The ash (both bottom ash and fly ash) transfer for Cogen Boilers #6 and #7 shall be accomplished such that there are no visible emissions greater than 10% opacity, on a six-minute block average basis, from either the loading of the ash by-product into trucks or trailers or the transport of the ash by-product, except for no more than one six-minute block average per hour. [A-214-70-A-I (July 30, 2003), BPT]

- M. The Mill shall operate, at a minimum, the number of ESP fields for which compliance with its licensed particulate emission limits has been demonstrated. Upon written notification to the Department, and in accordance with the Bureau of Air Quality Air Emission Compliance Test Protocol, the Mill may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall the Mill be relieved of its obligation to meet its licensed emission limits. [A-214-70-A-I (July 30, 2003), BPT]

- N. Cogen Boilers #6 and #7 are both subject to applicable requirements of 40 CFR Part 60, Subpart Db for emissions of particulate matter, SO₂, opacity, and NO_x. The Mill shall comply with the notification and recordkeeping requirements of 40 CFR Part 60.7. [40 CFR Part 60, Subpart Db]

- O. Rumford Paper Company shall comply with all applicable requirements of 40 CFR Part 63, Subpart DDDDD (Boiler MACT) for Cogen Boilers #6 and #7 according to the timeframes specified in the regulation. [40 CFR Part 63, Subpart DDDDD]

(18) **Lime Kiln**

A. **Fuels**

1. The Lime Kiln is licensed to fire fuel oil, natural gas, and LVHC gases. [A-214-77-7-A (9/2/2008) and 06-096 CMR 140, BPT]

2. The fuel oil fired in the Lime Kiln shall be limited to a maximum sulfur content of 2.0% by weight when there is no lime within the kiln and 2.5% by weight when there is lime within the kiln. [06-096 CMR 106 and 140; BPT]

B. Emission Limits and Compliance Methods

Compliance with the below specified emission limits shall be demonstrated in accordance with the methods and frequencies as indicated or other methods or frequencies as approved by the Department.

| <u>Pollutant</u> | <u>Emission Limit</u> | <u>Origin and Authority</u> | <u>Compliance Method</u> | <u>Frequency</u> |
|------------------|--|---|---|--|
| PM | 0.064 gr/dscf, @ 10% O ₂ | 40 CFR Part 63, Subpart MM, §63.862 and A-214-77-7-A (9/2/2008), BACT | Stack Testing: 40 CFR Part 60, Appendix A, Method 5 | Once every five calendar years or more frequently upon request by the Department |
| | 24.0 lb/hour | A-214-77-7-A (9/2/2008), BACT | | |
| PM ₁₀ | 24.0 lb/hour | A-214-77-7-A (9/2/2008), BACT | | Upon request by the Department |
| SO ₂ | 23.0 lb/hour | A-214-77-7-A (9/2/2008), BACT | Stack Testing: 40 CFR Part 60, Appendix A, Method 6 | Upon request by the Department |
| NO _x | 120 ppmv (wet) @ 10% O ₂ , 1-hour block average basis | 06-096 CMR 138 and A-214-70-A-I (July 30, 2003) | Stack Testing: 40 CFR, Part 60, Appendix A, Method 7 | Upon request by the Department |
| | 52.0 lb/hour | A-214-77-7-A (9/2/2008), BACT | | |
| CO | 39.0 lb/hour | A-214-77-7-A (9/2/2008), BACT | Stack Testing: 40 CFR, Part 60, Appendix A, Method 10 | Upon request by the Department |
| VOC | 2.0 lb/hour | A-214-77-7-A (9/2/2008), BACT | Stack Testing: 40 CFR, Part 60, App. A, Method 25 | Upon request by the Department |
| TRS | 8.0 ppmv (dry) @ 10% O ₂ , measured as H ₂ S | 40 CFR Part 60, Subpart BB §60.283(a)(5) | CEMS, 12-hour block average basis | Continuously, in accordance with 40 CFR Part 60, Subpart BB §60.284(c)(2)* |

* In accordance with Subpart BB, the facility shall calculate and record daily the 12-hour block average TRS and oxygen concentrations for the two consecutive periods of each operating day, determined as the arithmetic mean of the appropriate 12 contiguous, one-hour averages from the CEMS.

C. Control Equipment

The Mill shall continue to operate and maintain the Scrubber System to control emissions from the Lime Kiln at all times the Lime Kiln is in operation except when firing only natural gas with no lime in the Lime Kiln. [A-214-77-7-A (9/2/08) and 06-096 CMR 140, BPT]

D. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping that includes fuel use records and fuel analysis records. Periodic monitoring for the Lime Kiln shall also consist of the following:

| Parameter | Units | Monitoring Tool/Method | Frequency | |
|-----------------------|-------|------------------------|--------------|--------|
| | | | Monitor | Record |
| LVHCs firing duration | Hours | Continuous Log | Continuously | Daily |

[A-214-77-7-A (9/2/08) and 06-096 CMR 140, BPT]

E. Parameter Monitoring

The Mill shall operate and record the following parameter monitors as specified for the Lime Kiln whenever the unit is operating, in accordance with the procedures and requirements specified in 40 CFR Part 60, Subpart BB and 40 CFR Part 63, Subpart MM:

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|------------------|------------------------|--------------|-----------------------|
| | | | Monitor | Record |
| As required by 40 CFR Part 63, Subpart MM §63.864: | | | | |
| Scrubber media flow rate | gpm | Flow meter | Continuously | Once every 15 minutes |
| As required by 40 CFR Part 60, Subpart BB §60.284(b)(2)(ii): | | | | |
| Scrubbing liquid supply pressure to the scrubber | psi | Pressure gauge | Continuously | Once every 15 minutes |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period. [A-214-77-7-A (9/2/08) and 06-096 CMR 140, BPT]

F. Continuous Emissions Monitoring (CEMS)

CEMS for the Lime Kiln shall consist of the following: [40 CFR Part 60, Subpart BB §60.284 and 06-096 CMR 124(4)]

| Continuous Monitor | Unit of Measurement | Monitor and Record |
|--------------------|----------------------------------|--|
| TRS CEMS | ppm v (dry) @ 10% O ₂ | Continuously, in accordance with 40 CFR Part 60, Subpart BB and 06-096 CMR 124 |

G. The Mill shall comply with all applicable requirements contained in 40 CFR Part 60, Subpart BB for the Lime Kiln.

H. The Mill shall comply with all applicable requirements contained in 40 CFR Part 63, Subpart MM for the Lime Kiln.

(19) **Recovery Boiler C**

A. Fuel

1. Recovery Boiler C is licensed to fire black liquor, fuel oil, natural gas, and soap. [06-096 CMR 140, BPT]
2. The fuel oil fired in Recovery Boiler C shall be limited to a maximum sulfur content of 2.0% by weight when there is no smelt within the boiler and 2.5% by weight when there is smelt within the boiler. Compliance shall be demonstrated by purchase records from the supplier. [06-096 CMR 140, BPT]
3. Rumford Paper Company shall not exceed an annual capacity factor for fossil fuel (oil and natural gas combined) of 10%. Compliance shall be documented by fuel use records on an annual basis. [40 CFR Part 60, Subpart D and 06-096 CMR 140, BPT]

B. Startup and Shutdown

For the purposes of this condition, the definitions of *Startup* and *Shutdown* shall be as follows:

Startup is defined as the activities leading to and including firing of fuel in Recovery Boiler C for the purposes of achieving operating conditions which support the stable firing of black liquor. These activities include starting the ID/FD fans; manipulating dampers in the flue gas path for the boiler/precipitator; energizing and starting the precipitator; and firing fuel oil or natural gas, either alone or in combination with black liquor, until the conditions are achieved which support stable firing of black liquor.

Shutdown is defined as the activities leading to the cessation of operation of Recovery Boiler C, such as reducing the boiler/load and firing rate, and/or burning out the smelt bed while firing fuel oil or natural gas, alone or in combination with black liquor.

C. Emission Limits and Compliance Methods

1. Emissions from RBC shall not exceed the following limits. Compliance with the emission limits associated with RBC shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

| Pollutant | Emission Limit | Origin and Authority | Compliance Method | Frequency |
|---|---|---|---|--|
| PM | 0.044 grains/dscf @ 8% O ₂ | 40 CFR Part 60, Subpart BB, §60.282(a)(1)(i) and 40 CFR Part 63, Subpart MM, §63.862(a)(i)(A) | Stack testing in accordance with 40 CFR Part 60, Appendix A, Method 5 | Once every five years or more frequently upon request from the Department |
| | 86.7 lb/hour | A-214-71-E-A/R (7/18/1989), BACT/BPT | | |
| PM ₁₀ | 65.0 lb/hour | | | Upon request |
| SO ₂ | 100 ppmv (dry) ^a @ 8% O ₂ | A-214-71-S-A/R (9/3/1996), BACT/BPT | SO ₂ CEMS, 30-day rolling average | Continuously, in accordance with 40 CFR Part 60, Appendix B and 06-069 CMR 117 |
| | 206.3 lb/hour ^{b, c} | A-214-71-A-A (7/9/1986), BACT/BPT | SO ₂ CEMS, 3-hr block average | |
| NO _x | 110 ppmv (dry) @ 8% O ₂ | 06-096 CMR 138 (3)(C)(1) | NO _x CEMS, 24-hr block average | |
| | 215.0 lb/hour | A-214-71-AN-A (4/9/2002), BACT/BPT | | |
| CO | 222.0 lb/hour | A-214-71-E-A/R (7/18/1989), BACT/BPT | Stack Testing | Upon request |
| VOC | 3.7 lb/hour | | | |
| TRS | 5 ppmv (dry) @ 8% O ₂ , measured as H ₂ S | 40 CFR Part 60, Subpart BB, §60.283(a)(2) and 06-096 CMR 124(3)(H) | TRS CEMS, 12-hour block average | Continuously, in accordance with 40 CFR Part 60, Appendix B and 06-069 CMR 117 |
| Visible Emissions [except as provided in Condition (19)(C)(5)] | 30% opacity on a six-minute block average basis except for no more than one six-minute block average in a three-hour period | 06-096 CMR 101, §2(B)(2) and A-214-71-E-A/R (7/18/1989), BACT/BPT | COMS | |

- a. When RBC is firing only fuel oil, the monitored SO₂ ppmv emissions during that period shall not be included in determining the 30-day rolling average SO₂ ppmv emission rate.
- b. When Cogen Boiler #6 and/or #7 is/are utilizing the alternate limits per Condition (17)(C)(b) or (17)(C)(d), RBC shall be limited to 206.3 lb/hr of SO₂ emissions on a three-hour block average basis.
- c. As an alternative to the 206.3 lb/hr SO₂ emission limit, the Mill shall be determined to be in compliance when RBC exceeds the 206.3 lb/hr limit if all of the following requirements are met:
 - i. SO₂ emissions from RBC shall not exceed 650.0 lb/hr on a 3-hour block average basis.
 - ii. SO₂ emissions from Cogen Boilers #6 and #7 combined shall not exceed 250.0 lb/hr on a 3-hour block average basis.

- iii. SO₂ emissions from Boiler #3 shall not exceed 60.0 lb/hr on a 3-hour block average basis.
- iv. The Mill shall not utilize these limits to demonstrate compliance for more than 300 hours in any calendar year and shall report quarterly the dates, times, and number of 3-hour blocks when these limits were utilized for the quarter.

[A-214-77-5-A (February 29, 2008), A-214-70-H-A (April 15, 2008), and 06-096 CMR 140, BPT]

- 2. Compliance with the NO_x ppmv and lb/hr emission limits during periods of startup, shutdown, equipment malfunction, and fuel switching shall not be included in determining 24-hour daily block arithmetic average emission rates provided that operating records are available to demonstrate that the facility was being operated to minimize emissions. [06-096 CMR 138 §3(O)]
- 3. Two 12-hour block averages of TRS emissions in a quarter which exceed either license limits or the emission standards of Section 3(H) of 06-096 CMR 124 shall not be considered violations of 06-096 CMR 124. [06-096 CMR 124, 5(C)(3)(a)]
- 4. For the purpose of reports required under 40 CFR §60.7(c), the Mill shall report semiannually periods of excess emissions for RBC for the following: [40 CFR Part 60, Subpart BB, §60.284 (d)]
 - a. All 12-hour averages of TRS emissions above 5 ppmv; and
 - b. All 6-minute average opacities that exceed 35%.

The Department will not consider periods of excess emissions reported under the above paragraph as indicative of violation provided that the following two conditions are met: [40 CFR Part 60, Subpart BB §60.284 (e)]

- a. The percent of the total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the facility is not operating) during which excess emissions occur does not exceed the following:
 - (1) One percent for TRS emissions from RBC.
 - (2) Six percent for average opacities of emissions from RBC.
- b. The Department determines that RBC, including its air pollution control equipment, is maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions.

5. Visible Emissions

When Recovery Boiler C is operating, except for periods of maintenance and periods following the startup and shutdown of the F.D. and I.D. fans, visible emissions from Recovery Boiler C shall not exceed the limit as specified in the table above.

When Recovery Boiler C is operating and maintenance is being performed on either precipitator chamber, visible emissions from the stack shall not exceed 60% on a six-minute block average basis. [A-214-77-5-A (February 29, 2008), A-214-70-H-A (April 15, 2008)]

Rumford Paper Company shall implement corrective action, as specified in the startup, shutdown, and malfunction plan required for each unit under 40 CFR 63.866(a), when the average of ten consecutive six-minute block averages is greater than 20% opacity. [06-096 CMR 101 and 40 CFR Part 63, Subpart MM]

National Fire Protection Association (NFPA) and RBC

“National Fire Protection Association (NFPA) 85 Boiler and Combustion Systems Hazards Code (Section 6.6.5.2.5.4(F) of the NFPA 85, edition 2011) requires that the ESP trip on interlock with a boiler Master Fuel Trip (MFT), which may result in unavoidable opacity exceedances. The code requirement is intended to prevent ignition of potentially explosive gases that may be present in the precipitator chamber following a boiler trip; therefore, when an affected unit experiences a MFT that is not the result of operator error or poor maintenance, it is a result of a malfunction as defined in 40 CFR §60.2. Thus, possible opacity deviations during such events are not considered excess emissions per 40 CFR Part 60, §60.284(e)(1).

D. Control Equipment

The Mill shall continue to operate and maintain the Electrostatic Precipitator to control emissions from Recovery Boiler C. [06-096 CMR 140, BPT]

E. Periodic Monitoring

Rumford Paper Company shall monitor and record parameters for RBC and its associated air pollution control equipment as indicated in the following table whenever the equipment is operating. [06-096 CMR 140, BPT]

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|-------------------------|-------------------|--------------------------------|--|---------------|
| | | | Monitor | Record |
| Fuel oil firing rate | gpm | Flow Meter | Continuously | 24-hr average |
| Fuel oil sulfur content | Percent by weight | Purchase records from supplier | As fuel is purchased/delivered, documented semi-annually | |

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|-----------------------------------|----------------------|------------------------|----------------------|---------------|
| | | | Monitor | Record |
| Natural gas firing rate | MMscf/hour | Flow meter | Continuously | 24-hr average |
| Fuel oil and natural gas fuel use | Gallons and MMscf | Recordkeeping | Monthly and annually | |
| Black liquor firing rate | gpm and MMlb BLS/day | Flow meter | Continuously | 24-hr average |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

F. CEMS and COMS

Continuous Emission Monitoring for Recovery Boiler C shall consist of the following:

| Continuous Monitor | Unit of Measurement | Averaging Period | Origin and Authority |
|----------------------|---------------------------|--------------------------|------------------------------------|
| NO _x CEMS | ppmvd @ 8% O ₂ | 24-hour block average | 06-096 CMR 138 |
| | lb/hr | | |
| SO ₂ CEMS | ppmvd @ 8% O ₂ | 30-day rolling average | 06-096 CMR 140, BPT |
| | lb/hr | 3-hour block average | |
| Opacity | percent (%) | 6-minute block average * | 40 CFR Part 63, Subpart MM §63.864 |
| TRS CEMS | ppmvd @ 8% O ₂ | 12-hour block average | 06-096 CMR 124(4) |

* The continuous opacity monitor shall complete one cycle of sampling and analyzing every ten seconds and one cycle of data recording for each successive six-minute period.

G. The Mill shall comply with all applicable requirements contained in 40 CFR Part 60, Subpart BB for RBC. [40 CFR Part 60, Subpart BB]

H. The Mill shall comply with all applicable requirements contained in 40 CFR Part 63, Subpart MM for RBC. [40 CFR Part 63, Subpart MM]

(20) **Smelt Tank C**

A. Emission Limits and Compliance Methods

Emissions from Smelt Tank C shall not exceed the following limits. Compliance shall be demonstrated in accordance with the following methods and frequencies or other methods and frequencies as approved by the Department [06-096 CMR 140, BPT]:

| Pollutant | Emission Limit | Origin and Authority | Compliance Method | Frequency |
|------------------|--|--|--|--|
| PM | 0.192 lb/ton BLS | A-217-71 E-A/R (7/18/1989), BACT/BPT | Stack Testing: 40 CFR Part 60, Appendix A, Method 5 | Once every five years, or more frequently upon request |
| | 16.0 lb/hour | | | |
| PM ₁₀ | 0.190 lb/ton BLS | A-217-71 E-A/R (7/18/1989), BACT/BPT | | Upon request by the Department |
| | 15.8 lb/hour | | | |
| SO ₂ | 0.067 lb/ton BLS | A-217-71 E-A/R (7/18/1989), BACT/BPT | Stack Testing: 40 CFR Part 60, Appendix A, Method 6 | Upon request by the Department |
| | 5.5 lb/hr | A-214-71-S-A/R (9/3/1996), BACT/BPT | | |
| TRS | 0.033 lb/ton BLS, as H ₂ S | 40 CFR Part 60, Subpart BB, §60.282(a)(4) and 06-096 CMR 124 | Stack Testing: 40 CFR Part 60, App. A, Method 16B | Once every two years, or more frequently upon request by the Department |

B. Control Equipment

Emissions from Smelt Tank C shall continuously vent through one of the two Venturi Scrubber Systems when Smelt Tank C is in operation. The Mill shall keep records of scrubber downtime. [06-096 CMR 140, BPT]

C. Parameter Monitors

- The Mill shall monitor and record parameters for Smelt Tank C and its associated air pollution control equipment as indicated in the following table whenever the equipment is operating. [40 CFR Part 60, Subpart BB and 06-096 CMR 140, BPT]

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|---------------------|-------------------------------|--------------|-----------------------------|
| | | | Monitor | Record |
| Venturi pressure drop ¹ | in. of water column | Differential pressure monitor | Continuously | once every 15-minute period |
| Scrubber media flow rate | gpm | Flow meter | Continuously | |
| Scrubbing liquid supply pressure to the scrubbers ² | psi | Pressure gauge | Continuously | |

- Requirement of 40 CFR Part 60, Subpart BB, §60.284 (b)(2)(i)
- Requirement of 40 CFR Part 60, Subpart BB, §60.284 (b)(2)(ii)

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

2. The Mill shall comply with all applicable requirements contained in 40 CFR Part 60, Subpart BB for Smelt Tank C. [40 CFR Part 60, Subpart BB]
3. The Mill shall comply with all applicable requirements contained in 40 CFR Part 63, Subpart MM for Smelt Tank C. [40 CFR Part 63, Subpart MM]

(21) **Lime Slaker**

A. Emission Limits

The Mill shall operate the Lime Slaker such that the visible emissions from the stack do not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. Compliance shall be demonstrated by testing in accordance with 40 CFR Part 60, Appendix A, Method 9 upon request by the Department. [06-096 CMR 101,§2(B)(3)(d) and 06-096 CMR 140, BPT]

B. Control Equipment

The Mill shall continue to operate and maintain the Static Scrubber System to control emissions from the Lime Slaker when the Lime Slaker is in operation. The Mill shall keep records of scrubber downtime to document compliance with this requirement. [06-096 CMR 140, BPT]

C. Parameter Monitoring

The Mill shall operate monitors and record the following parameters as specified for the lime slaker [06-096 CMR 140, BPT]:

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--------------------------|------------------|------------------------|--------------|-----------------------------|
| | | | Monitor | Record |
| Scrubber media flow rate | gpm | Flow meter | Continuously | once every 15-minute period |

For the purposes of the above table, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

(22) **LVHC System**

A. Digesters

1. The Mill shall continue to combust emissions from batch digesters #1, #2, #3, and #4 in the Lime Kiln, Power Boiler #3, Cogen Boiler #6, or Cogen

Boiler #7 in accordance with the requirements and specifications of 40 CFR Part 60, Subpart BB. [40 CFR Part 60, Subpart BB]

2. Each digester system shall be vented to Boiler #3, Boiler #6, Boiler #7 or the Lime Kiln when the digester is in operation, as specified in 40 CFR Part 63, Subpart S and 06-096 CMR 124. [40 CFR Part 63, Subpart S and 06-096 CMR 124]

B. Evaporators

The Mill shall continue to combust emissions from the Multiple Effect Evaporator system in Power Boiler #3, Cogen Boiler #6, or Cogen Boiler #7 in accordance with the requirements and specifications of 40 CFR Part 60, Subpart BB; 40 CFR Part 63, Subpart S; and 06-096 CMR 124. [40 CFR Part 60, Subpart BB; 40 CFR Part 63, Subpart S; and 06-096 CMR 124]

- C. The Mill shall comply with the recordkeeping and reporting requirements applicable to the LVHC system as specified in 06-096 CMR 124 and 40 CFR Part 63, Subpart S. [06-096 CMR 124 and 40 CFR Part 63, Subpart S]

- D. The Mill shall not allow venting of TRS from the LVHC system or associated equipment required to be controlled which exceeds 40 minutes in duration or contributes to an aggregate TRS venting of more than 1.0% of quarterly operating time. [06-096 CMR 124 (3)(C)]

- E. The Mill shall report verbally, in writing, or via facsimile to the Department no later than the next State working day any venting of TRS to the atmosphere from the LVHC collection system of longer than 15 minutes. [06-096 CMR 124 (5)(B)(1)]

- F. The Mill shall submit to the Department quarterly reports which identify the following:

1. All ventings of TRS from the LVHC system or associated equipment that exceeds 40 minutes in duration;
2. All venting of TRS from the LVHC system or associated equipment for greater than one minute which contributes to an aggregate TRS venting of more than 1% of quarterly operating time; and
3. All venting of TRS from the LVHC system or associated equipment for greater than 15 minutes when the aggregate TRS venting exceeds 0.5% of quarterly operating time. For each event, an explanation shall be included of the cause of the event and action taken to prevent similar events from occurring in the future.

[06-096 CMR 124 (5)(C)(5), (6), and (7)]

G. Pursuant to 40 CFR Part 63, Subpart S, the Mill shall operate the LVHC system as follows:

1. The LVHC system shall be enclosed and vented into a closed-vent system per 40 CFR Part 63, Subpart S, Sections 63.443 and 63.450.
2. Periods of excess emissions reported under 40 CFR Part 63, Subpart S, Section 63.455 shall not be a violation of Sections 63.443 (c) and (d), or this License, provided that the time of excess emissions divided by the total process operating time in a semi-annual reporting period does not exceed the following levels: 1% for control devices used to reduce the total HAP emissions from the LVHC system, and 4% for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.

[40 CFR Part 63 Subpart S §63.443 (e)(1) and (3)]

(23) **HVLC System**

A. Kamy Chip Bin

When flash steam is being used in the Chip Bin, gaseous emissions from the Chip Bin shall be collected into the HVLC collection system. When fresh steam is being used in the Chip Bin, the gases are not required to be collected as part of the HVLC system. [40 CFR Part 63, Subpart S]

B. Brownstock Washer Systems

1. The Brownstock Washer Systems shall be vented to Boiler #3, Cogen Boiler #6, or Cogen Boiler #7 when the washer systems are in use. The Hardwood Brownstock Washer System shall comply with the requirements of NSPS 40 CFR Part 60, Subpart BB. [40 CFR Part 60, Subpart BB]
2. The Mill shall collect and control TRS emissions greater than 0.75 lb/hour from the Brownstock Washer Systems per the requirements of 06-096 CMR 124. [06-096 CMR 124]

C. Deckers

Any Decker using process water containing greater than 400 ppmw of HAP (measured as methanol) shall be vented to Boiler #3, Cogen Boiler #6, or Cogen Boiler #7 per the requirements of 40 CFR Part 63 Subpart S. [40 CFR Subpart S]

D. Saltcake Mix Tank and Precipitator Mix Tank

The saltcake mix tank and the precipitator mix tank shall be vented to Boiler #3, Boiler #6, or Boiler #7 when Recovery Boiler C is operating. [06-096 CMR 124]

E. Overall HVLC System Requirements

1. The HVLC system shall maintain a 96% collection and control uptime based on quarterly brownstock washer system operating time on a total mass weighted basis per 06-096 CMR 124 and based on semi-annual brownstock washer system operating time on a total mass weighted basis per 40 CFR Part 63, Subpart S. [06-096 CMR 124 (3)(E) and 40 CFR Part 63, Subpart S]
2. Condensates from the HVLC system shall be collected and treated by the Steam Stripper as required by 40 CFR Part 63, Subpart S. [40 CFR Part 63, Subpart S]
3. The Mill shall comply with the applicable HVLC system recordkeeping and reporting requirements contained in 40 CFR Part 63, Subpart S and 06-096 CMR 124. [40 CFR Part 63, Subpart S and 06-096 CMR 124]
4. The Mill shall report verbally, in writing, or via facsimile to the Department on the next State working day any venting of TRS to the atmosphere from the HVLC collection system of longer than four hours. [06-096 CMR 124 (5)(B)(2)]
5. The Mill shall submit to the Department quarterly reports which identify all ventings of TRS from the HVLC system greater than one minute in duration when the sum of all venting occurrences is greater than 4% of the quarterly brownstock washer operating time on a total mass weighted basis. [06-096 CMR 124 (5)(C)(8)]

(24) **Closed Collection and Vent System Monitoring**

- A. For equipment required to be inspected per 40 CFR §63.453(k) and (l), the Mill shall exempt any closed vent system, fixed roof cover, or enclosure from 30-day and annual inspection, monitoring, and repair requirements if it is determined that personnel performing the inspection or repair would be exposed to an imminent or potential danger, or the equipment could not be inspected without elevating the inspection personnel more than six feet above a supported surface. The site-specific monitoring plan must identify exempted equipment and describe how the equipment will be inspected and/or repaired during periods determined to be safe, which must be at least once every five years. [40 CFR Part 63, §63.453(m)]

- B. The Mill shall perform inspections in accordance with 40 CFR Part 63, §63.453(k) and (l) at least once during every 30 days. [40 CFR Part 63, §63.453]

(25) Condensate Collection and Steam Stripper System

- A. The Mill shall collect pulping process condensates that contain a total HAP mass of equal to or greater than 11.1 pounds per ton of oven-dry pulp from the Digester Systems, from the Evaporator System, and from the HVLC, LVHC, and SOG systems, or comply with other control options according to 40 CFR §63.446(c). Compliance shall be demonstrated by a rolling average of the last 30 operating days. [40 CFR Part 63, §63.446(c)]
- B. The Mill shall treat the pulping process condensates according to the options in 40 CFR Subpart S. [40 CFR Part 63, §63.446(e)]
- C. Excess emissions relative to condensate collection and control by means of the Steam Stripper shall not be a violation of Subpart S or this License provided that such excess emissions (including periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual reporting period does not exceed 10%. [40 CFR Part 63, §63.446(g)]
- D. The Foul Condensate Tank shall meet the requirements of 40 CFR Part 63, Subpart S §63.446(d)(2).
- E. Emissions from the Steam Stripper System shall be collected and controlled through incineration in Boiler #3, #6, and/or #7 for a minimum of 99% of the Steam Stripper operating time on a quarterly basis per 06-096 CMR 124 (3)(F) and on a semi-annual basis per 40 CFR Part 63, Subpart S.
- F. Quarterly Recordkeeping

The Mill shall record the amount of time on a quarterly basis of the following:

1. the Steam Stripper operating time;
2. the times and durations of combustion of Steam Stripper Off-Gases (SOGs) in Boilers #3, Cogen Boilers #6, or Cogen Boiler #7; and
3. any venting of SOGs greater than one minute in duration.

[A-214-70-A-I (July 30, 2003), BPT and 06-096 CMR 124 (5)(C)(9)]

G. Reporting

1. The Mill shall report verbally, in writing or email, or via facsimile to the Department no later than the next State working day any venting of TRS to the atmosphere from the Steam Stripper System of longer than 15 minutes. [06-096 CMR 124 (5)(B)(1)]

2. The Mill shall submit quarterly reports to the Department which contain all venting of emissions from the Steam Stripper Collection System greater than one minute in duration when the sum of all venting occurrences is in excess of 1% of the quarterly Steam Stripper Collection System operating time. [06-096 CMR 124 (5)(C)(9) for quarterly reports and 40 CFR Part 63, Subpart S for semi-annual reports]

H. Parameter Monitoring [40 CFR Part 63, §63.453(g)]

The Mill shall monitor and record the following for the Steam Stripper:

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|--|------------------|------------------------|---|--------|
| | | | Monitor | Record |
| Process wastewater feed rate | gpm | Flow meter | Monitor continuously, record every 15 minutes | |
| Steam feed rate | kpph | Flow meter | | |
| Process wastewater column feed temperature | °F | Temperature probe | | |

To establish or re-establish the value for each operating parameter required to be monitored under Subpart S as identified in the table above, the Mill shall use data obtained during the most recently conducted successful performance test. Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations. Rumford Paper Company shall provide to the Department the rationale for selecting the monitoring parameter ranges, including all data and calculations used to develop the values. [40 CFR Part 63, Subpart S, §63.453(n)]

- I. The Steam Stripper System is subject to and shall comply with the applicable requirements of 06-096 CMR 124 and 40 CFR Part 63, Subpart S. [06-096 CMR 124 and 40 CFR Part 63, Subpart S]

(26) **Bleach Plant**

A. System Requirements

1. The Bleach Plant shall consist of the Bleach Plant A-Line, the Bleach Plant B-Line, the Bleaching Scrubber System, the R8 ClO₂ Generation Plant, and the ClO₂ Scrubber System.
2. The equipment at each bleaching stage where chlorinated compounds are introduced shall be enclosed and vented into a closed-vent system and routed to a control device which meets the requirements specified in 40 CFR Part 63, Subpart S §63.450. [40 CFR Part 63, Subpart S, §63.445 (b)]

B. Emission Limits

1. Total chlorine (Cl₂) emissions from the Bleach Plant shall not exceed 3.0 lb/hour. [06-096 CMR 140, BPT] **Enforceable by State-only**
2. Total chlorine dioxide (ClO₂) emissions from the Bleach Plant shall not exceed 3.0 lb/hour. [06-096 CMR 140, BPT] **Enforceable by State-only**
3. Total chlorinated HAP emissions (not including chloroform) measured as chlorine from the equipment specified in 63.445(b) shall meet the following requirements: [40 CFR Part 63, §63.445(c)]
 - a. Reduce the total chlorinated HAP mass in the vent stream entering the scrubber by at least 99% by weight;
 - b. Achieve a scrubber outlet concentration of no more than 10 ppmv of total chlorinated HAP; or
 - c. Achieve a scrubber outlet mass emission rate of no more than 0.002 lb of total chlorinated HAP per ton of ODP.

C. The Mill shall use no hypochlorite or chlorine (Cl₂) for bleaching in the Bleach Plant. [40 CFR Part 63, Subpart S, §63.445 (d)(2)]

D. Periodic and Parameter Monitoring

The Mill shall operate monitors and record the following periodic measures as specified for the Bleach Plant Scrubber Systems A & B and the ClO₂ Generation Plant Scrubber System [CFR Part 63, §63.453(c), and 06-096 CMR 140, BPT]:

Periodic Monitoring

| <u>Periodic Value</u> | <u>Units</u> | <u>Monitoring Tool/Method</u> | <u>Frequency</u> | |
|--|------------------|----------------------------------|------------------|----------------|
| | | | <u>Monitor</u> | <u>Record</u> |
| Bleach Plant Scrubber fan amperage | amps | Amp meter | Continuously | Once per Shift |
| ClO ₂ Scrubber fan "on/off" | on/off operation | Distributed Control System (DCS) | | |

The Mill shall operate monitors and record the following parameters as specified for the Bleach Plant Scrubber Systems A & B and the ClO₂ Generation Plant Scrubber System [CFR Part 63, §63.453(c), and 06-096 CMR 140, BPT]:

Parameter Monitoring

| Parameter | Units of Measure | Monitoring Tool/Method | Frequency | |
|-------------------|---------------------|-------------------------------|--------------|----------------|
| | | | Monitor | Record |
| Recycle Flow Rate | gpm | Flow meter | Continuously | Once per Shift |
| Pressure Drop | in. of water column | Differential pressure monitor | | |
| Recycle Flow ORP | mvolts | Probe | | |

[A-214-70-F-A & A-214-77-4-A (December 26, 2007); 40 CFR Part 63, §63.453(c); and 06-096 CMR 140]

For the purposes of the two tables above, *Continuously* shall mean ongoing while the equipment is operating, providing, at a minimum, one data point per specified data recording period.

To establish or re-establish the value for each operating parameter or its EPA-approved substitute parameter required to be monitored under Subpart S as identified in the Parameter Monitoring table above, the Mill shall use data obtained during the most recently conducted successful performance test. Determinations shall be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations. Rumford Paper Company shall provide for Departmental approval the rationale for selecting the monitoring parameter ranges, including all data and calculations used to develop the values. [40 CFR Part 63, Subpart S, §63.453(n)]

The parametric monitors listed in the Parameter Monitoring table above must operate at least 90% of the time during each quarter. Documentation shall be maintained by the facility to show compliance with uptime requirements. [A-214-70-A-I (July 30, 2003) and 06-096 CMR 140, BPT]

- E. When only one scrubber system is controlling emissions from both Bleach Plant A-Line and B-Line or one scrubber column is controlling emissions from one bleach line and its operating parameters are within acceptable operating ranges, parameter monitoring on the additional scrubber system or scrubber column is redundant and is not required. [06-096 CMR 140, BPT]
- F. The Mill shall operate the Bleach Plant Scrubber System, when the Bleach Plant is in operation, in accordance with the requirements of 40 CFR 63, §63.445(c). [A-214-77-8-M (August 24, 2009); 40 CFR Part §63.445(b); 06-096 CMR 115, BACT; and 38 M.R.S.A 589,§§2]
- G. The Mill shall operate the Bleach Plant Scrubber fan(s) at maximum speed during any performance test used to demonstrate compliance. [40 CFR Part 63, §63.453(m)]

H. The Mill shall comply with all applicable monitoring requirements contained in 40 CFR Part 63, §63.453(m), (n), and (o), including as applicable to the alternate parameters as approved by the EPA. [40 CFR Part 63, §63.453(m)]

(27) **Bulk Handling Systems** [06-096 CMR 140, BPT]

For each component of the bulk handling system, the Mill shall fulfill the following requirements:

- A. Maintain the alarm systems in proper operating condition.
- B. Maintain all baghouses to achieve visible emissions no greater than 10% opacity on a six minute block average basis, except for no more than one six-minute block average per hour.
- C. Clean-up all spills within 24 hours of the occurrence of each spill.
- D. Inspect all unloading systems for leaks and malfunctions as described by the Mill's Best Management Practice (BMP) Plan. The BMP Plan shall be available to the Department upon request.
- E. Discontinue unloading until leaks and/or malfunctions are eliminated.

(28) **R-10 Paper Machine Air Flotation Dryers #1-#4**

A. Fuel

The Mill shall fire only propane or natural gas in each of the R-10 Dryers #1, #2, #3, and #4. [06-096 CMR 140, BPT]

B. Emission Limits

1. Emissions from the R-10 Dryers #1, #2, #3, and #4 shall not exceed the following limits [06-096 CMR 140, BPT] :

| Pollutant | lb/MMBtu | lb/hour (total) |
|------------------|-----------------|------------------------|
| PM | 0.12 | 3.47 |
| PM ₁₀ | -- | 3.47 |
| SO ₂ | -- | 0.016 |
| NO _x | -- | 4.47 |
| CO | -- | 0.61 |
| VOC | -- | 0.16 |

2. Visible emissions from each of the R-10 Dryers #1, #2, #3, and #4 shall not exceed 10% opacity on a six-minute block average basis. [06-096 CMR 140, BPT and 06-096 CMR 101]

(29) Building Air Heaters

A. Fuel

1. Air Heaters Units 1-4, A-L, and RB shall fire only natural gas.
2. Rumford Paper Company shall maintain records of the quantity of fuel consumed on an annual basis.
3. Units 2, 3, 4, A, C, D, E, F, G, H, K, L and RB shall each not exceed an operational limit of 5,040 hours per year. Compliance shall be demonstrated by records of the first and last operating days in each heating season. [A-214-70-D-A (April 12, 2004) and 06-096 CMR140, BPT]

[A-214-70-B-A (August 27, 2003); A-214-70-D-A (April 12, 2004); A-214-77-3-A (November 7, 2007); and 06-096 CMR 140, BACT]

B. Emissions Limits

1. Emissions from the natural gas-fired building air heaters shall not exceed the following:

| Unit | Pollutant | lb/MMBtu | Origin and Authority |
|-------------------|-----------|----------|---|
| Each Heating Unit | PM | 0.005 | A-214-70-D-A (April 12, 2004) and A-214-77-3-A (November 7, 2007), BACT |

2. Emissions from the natural gas-fired building air heaters, in lb/hour, shall not exceed the following:

| Equipment | Lb/hour Emission Limits | | | | |
|-----------|-------------------------|------------------|-----------------|------|------|
| | PM | PM ₁₀ | NO _x | CO | VOC |
| Unit 1 | 0.03 | 0.03 | 0.65 | 0.65 | 0.03 |
| Unit 2 | 0.05 | 0.05 | 0.96 | 0.96 | 0.05 |
| Unit 3 | 0.03 | 0.03 | 0.55 | 0.55 | 0.03 |
| Unit 4 | 0.03 | 0.03 | 0.55 | 0.55 | 0.03 |
| Unit A | 0.01 | 0.01 | 0.21 | 0.21 | 0.01 |
| Unit B | 0.07 | 0.07 | 1.41 | 1.41 | 0.08 |
| Unit C | 0.03 | 0.03 | 0.64 | 0.64 | 0.03 |
| Unit D | 0.03 | 0.03 | 0.63 | 0.63 | 0.03 |
| Unit E | 0.03 | 0.03 | 0.51 | 0.51 | 0.03 |
| Unit F | 0.02 | 0.02 | 0.46 | 0.46 | 0.02 |
| Unit G | 0.03 | 0.03 | 0.64 | 0.64 | 0.03 |
| Unit H | 0.07 | 0.07 | 1.41 | 1.41 | 0.08 |
| Unit I | 0.04 | 0.04 | 0.77 | 0.77 | 0.04 |
| Unit J | 0.06 | 0.06 | 1.28 | 1.28 | 0.07 |
| Unit K | 0.04 | 0.04 | 0.77 | 0.77 | 0.04 |

| Equipment | Lb/hour Emission Limits | | | | |
|-----------|-------------------------|------------------|-----------------|------|------|
| | PM | PM ₁₀ | NO _x | CO | VOC |
| Unit L | 0.03 | 0.03 | 0.63 | 0.63 | 0.03 |
| Unit RB | 0.05 | 0.05 | 0.99 | 0.99 | 0.05 |

3. Visible emissions from each of the natural gas building air heaters shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a continuous three-hour period. [06-096 CMR 101]

(30) **Generators and Engines**

The emergency generators/engines onsite consists of the following five units:

- Cogen Emergency Diesel Generator
- R15 Emergency Diesel Generator
- Mill Emergency Diesel Generator
- Diesel Fire Water Pump
- Lift Pump Emergency Generator

The non-emergency generators/engines onsite consist of the following unit:

- Lime Kiln Auxiliary Drive

A. Allowable Operation and Fuels

1. The Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, Mill Emergency Diesel Generator, Diesel Fire Water Pump, and Lift Pump Emergency Generator are licensed to fire diesel fuel. [06-096 CMR 140, BPT]
2. The Lime Kiln Auxiliary Drive is licensed to fire natural gas or propane. [06-096 CMR 140, BPT]
3. The Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, Mill Emergency Diesel Generator, Diesel Fire Water Pump, and Lift Pump Emergency Generator are each limited to 500 hours of total operation per calendar year. Compliance shall be demonstrated by a written log or similar documentation of all generator operating hours. [06-096 CMR 140, BPT]

B. Fuel Sulfur Content

1. The fuel oil sulfur content for the generators and engines licensed to fire diesel fuel shall be limited to 0.0015% sulfur. [06-096 CMR 140, BPT]
2. The Lift Pump Emergency Generator fuel oil sulfur content shall be limited to 0.0015% sulfur. [40 CFR Part 60, Subpart IIII §60.4207(b)]

3. Compliance with the fuel sulfur content limits shall be demonstrated by fuel purchase records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 140, BPT]

C. Emissions from the specified units shall not exceed the following:

| <u>Emission Unit</u> | <u>Pollutant</u> | <u>(g/kW-hr)</u> | <u>Origin and Authority</u> |
|----------------------|----------------------|------------------|--|
| Lift Pump | PM | 0.20 | 40 CFR Part 60, Subpart III §60.4205(b) |
| Emergency | NO _x +VOC | 6.4 | |
| Generator | CO | 3.5 | |

| <u>Emission Unit</u> | <u>Pollutant</u> | <u>lb/MMBtu</u> | <u>Origin and Authority</u> |
|---------------------------------|------------------|-----------------|--|
| Lift Pump Emergency Generator | PM | 0.05 | A-214-77-5-A (February 29, 2008), BACT |
| Mill Emergency Diesel Generator | PM | 0.12 | 06-096 CMR 103 (2)(B)(1)(a) |

D. Emissions from the specified units shall not exceed the following: [A-214-77-5-A (February 29, 2008), BACT]

| <u>Unit</u> | <u>Lb/hour Emission Limits</u> | | | | |
|-------------------------------|--------------------------------|------------------------|-----------------------|-----------------------------|-----------|
| | <u>PM</u> | <u>PM₁₀</u> | <u>SO₂</u> | <u>NO_x + VOC</u> | <u>CO</u> |
| Lift Pump Emergency Generator | 0.26 | 0.26 | 0.01 | 8.20 | 4.48 |

| <u>Unit</u> | <u>Lb/hour Emission Limits</u> | | | | | |
|----------------------------------|--------------------------------|------------------------|-----------------------|-----------------------|-----------|------------|
| | <u>PM</u> | <u>PM₁₀</u> | <u>SO₂</u> | <u>NO_x</u> | <u>CO</u> | <u>VOC</u> |
| Mill Emergency Diesel Generator | 0.65 | 0.65 | 0.01 | 17.41 | 4.62 | 0.49 |
| Cogen Emergency Diesel Generator | 0.47 | 0.47 | 0.002 | 6.44 | 1.39 | 0.51 |
| R15 Emergency Diesel Generator | 0.37 | 0.37 | 0.002 | 5.38 | 1.16 | 0.43 |
| Diesel Fire Water Pump | 0.50 | 0.50 | 0.002 | 7.06 | 1.52 | 0.56 |
| Lime Kiln Auxiliary Drive | 0.02 | 0.02 | negligible | 1.16 | 0.21 | 0.07 |

[06-096 CMR 140, BPT]

E. Visible Emissions

1. Visible emissions from each generator or engine shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101]
2. The Lift Pump Emergency Generator shall not exceed the following visible emissions:
 - a. 20% opacity during the acceleration mode
 - b. 15% opacity during the lugging mode

- c. 50% opacity during the peaks in either the acceleration or lugging mode
[40 CFR Part 60, Subpart III §60.4205(b)]

F. The Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, Mill Emergency Diesel Generator, Diesel Fire Water Pump, and Lime Kiln Auxiliary Drive shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. The Mill shall meet the following operational limitations for the compression ignition emergency generators and engines (Cogen Emergency Diesel Generator, R15 Emergency Diesel Generator, and Diesel Fire Water Pump):
 - a. Change the oil and filter annually,
 - b. Inspect the air cleaner annually, and
 - c. Inspect the hoses and belts annually and replace as necessary.

The Mill shall meet the following operational limitations for the spark ignition non-emergency engine rated less than 100 hp (Lime Kiln Auxiliary Drive):

- a. Change the oil and filter annually;
- b. Inspect the spark plugs annually and replace as necessary; and
- c. Inspect the hoses and belts annually and replace as necessary.

A log shall be maintained documenting compliance with these operational limitations. [40 CFR §63.6603(a) and Table 2(d)]

2. Rumford Paper Company has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) to extend the specified oil change requirement. If this option is used, the Mill must keep records of the parameters that are analyzed as part of the program, the results of each analysis, and the oil changes for each generator or engine. The analysis program must be part of the maintenance plan for each generator or engine. [40 CFR §63.6625(i)]
3. A non-resettable hour meter shall be installed and operated on each generator or engine. [40 CFR §63.6625(f)]
4. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. The emergency generators/engines, excluding the Mill Emergency Generator, shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or

otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). These limits are based on a calendar year. Compliance shall be demonstrated by a written log or similar documentation of all emergency generator operating hours. [40 CFR §63.6640(f) and 06-096 CMR 115]

- b. Rumford Paper Company shall keep records that include maintenance conducted on the generators and engines, and the hours of operation of each, recorded through the non-resettable hour meter.

Documentation for the emergency generators/engines shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours were spent for non-emergency. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), Rumford Paper Company must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

5. The generators and engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or Rumford Paper Company shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]
 6. During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR Part 63, Subpart ZZZZ, §63.6625(h) and Table 2c]
 7. If an emergency stationary RICE at the Mill operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the Mill shall comply with the applicable reporting requirements of §63.6650(h) for the specific unit. [40 CFR §63.6650(h)]
- G. The Lift Pump Emergency Generator shall meet the applicable requirements of 40 CFR Part 60, Subpart IIII, including the following:

1. The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in §60.4202. [40 CFR §60.4205(b)]
2. A non-resettable hour meter shall be installed and operated on the Lift Pump Emergency Generator. [40 CFR §60.4209(a)]
3. The Lift Pump Emergency Generator shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. These limits are based on a calendar year. Compliance shall be demonstrated by a written log or similar documentation of all engine operating hours. [40 CFR §60.4211(f) and 06-096 CMR 140]
4. The Lift Pump Emergency Generator shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by the Mill and approved by the engine manufacturer. The Mill may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]
5. The Mill shall comply with the Initial Notification requirements of §63.6645(f) for the Lift Pump Emergency Generator. [40 CFR §63.6590(b)(1)(i)]

(31) **Parts Washers**

Parts washers (also called solvent cleaners) at Rumford Paper Company are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

- A. Rumford Paper Company shall keep records of the amount of solvent added to each solvent cleaner. [06-096 CMR 140, 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 06-096 CMR 130:
 1. Rumford Paper Company shall attach a permanent, conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:

- a. Waste solvent shall be collected and stored in closed containers.
 - b. 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.
 - c. Flushing of parts shall be performed with a solid fluid stream of solvent spray (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.
 - d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - e. Sponges, fabric, wood, leather, paper products, and other absorbent materials shall not be cleaned in the solvent cleaner.
 - f. 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 shall not be used.
 - g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
 - h. Work area fans shall not blow across the opening of the solvent cleaner.
 - i. 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]

(32) Fugitive Emissions

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

(33) General Process Sources

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [06-096 CMR 101]

(34) **Definition of Averaging Times**

- A. The meanings of “24-hour block average” and “12-hour block average” shall be as defined in 06-096 CMR 117 unless otherwise specified in unit-specific license conditions.
- B. Unless otherwise defined herein, a “30 day rolling average” refers to the last 30 steam generating unit operating days, as described in 40 CFR Part 60, Subpart Db.

[06-096 CMR 117 and 40 CFR Part 60, Subpart Db]

(35) **Startups, Shutdowns, and Malfunctions Plan (SSM Plan)** [40 CFR Part 63, §63.866]

Rumford Paper Company shall develop and maintain a written plan as described in 40 CFR Part 63, §63.6(e)(3), for Recovery Boiler C, Smelt Tank C, and the Lime Kiln, which contains the following:

- A. Specific procedures for operating and maintaining each unit during periods of startup, shutdown, and malfunction;
- B. A program of corrective action for malfunctioning process and control systems used to comply with the standards, for each unit as applicable;
- C. Procedures for responding to any process parameter level that is inconsistent with the level(s) established under 40 CFR §63.864(j), including (1) procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; and (2) corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance;
- D. A maintenance schedule for each control technique that is consistent with, but not limited to, the manufacturer's instructions and recommendations for routine and long-term maintenance; and
- E. An inspection schedule for each continuous monitoring system required under 40 CFR §63.864 to ensure, at least once in each 24-hour period, each continuous monitoring system is functioning properly.

(36) The Mill shall maintain a NPDES or MEPDES permit. [06-096 CMR 134]

- (37) **Parameter Monitor General Requirements** [06-096 CMR 117 and 140]
- A. Parameter monitors required by this license shall be installed, operated, maintained, and calibrated in accordance with manufacturer recommendations or as otherwise required by the Department.
 - B. Parameter monitors required by this license shall continuously monitor data at all times the associated emissions unit is in operation. "Continuously" with respect to the operation of parameter monitors required by this license means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitute a valid hour.
 - C. Each parameter monitor must record accurate and reliable data. Unless otherwise specified, if the parameter monitor is recording accurate and reliable data less than 98% of the associated emissions unit operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time of the quarter during which the parameter monitor was not recording accurate and reliable data, unless the licensee demonstrates to the Department's satisfaction that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

Enforceable by State-only

- (38) **CEMS Recordkeeping and Testing**
- A. All CEMS and COMS required by this Order shall be operated to record accurate data in the units of the applicable standard during all source operating times, except for periods when the CEMS or COMS is subject to established quality assurance and quality control procedures or during periods of unavoidable malfunction. [06-096 CMR 117 (3)(A)]
 - B. The licensee shall maintain records documenting that all CEMS and COMS are continuously accurate, reliable, and operated in accordance with 06-096 CMR 117 (as amended), 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F.
 - C. The licensee shall maintain records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51 Appendix P.
 - D. The licensee shall maintain records of other data indicative of compliance with the applicable emission standards for those periods when the CEMS or COMS were not in operation or produced invalid data. In the event the

Department does not concur with the licensee's compliance determination, the licensee shall, upon the Department's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard. [06-096 CMR 140]

- E. Relative Accuracy Test Audits (RATAs) shall be performed on all required CEMS in accordance with 06-096 CMR 117 at least every fourth successive calendar quarter. If the emission unit has not had 168 unit operating hours in a quarter, then that quarter shall be excluded in determining the deadline for the next RATA.

If the RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA, a RATA must be completed within 720 operating hours after the end of the eighth successive elapsed calendar quarter. If an emission unit is shutdown during a quarter in which a RATA is due, before the RATA can be completed, then there is a grace period of 30 operating days before the data from the CEMS will be considered invalid, in accordance with 06-096 CMR 117 (4)(B)(5)(d).

[06-096 CMR 117] **Enforceable by State-only**

(39) **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Department within 30 days after the end of each calendar quarter detailing the following for control equipment, parameter monitors, CEMS, and COMS required by this license. [06-096 CMR 117]

- A. All control equipment downtimes and malfunctions;
- B. All CEMS or COMS downtimes and malfunctions;
- C. All parameter monitor downtimes and malfunctions;
- D. All excess events of emissions and operational limitations set by this Order, Statute, or state or federal regulations, as appropriate. The following information shall be reported for each excess event:
 - 1. Standard exceeded;
 - 2. Date, time, and duration of excess event;
 - 3. Amount of air contaminant emitted in excess of the applicable emission standard, expressed in the units of the standard;
 - 4. A description of what caused the excess event;
 - 5. The strategy employed to minimize the excess event; and
 - 6. The strategy employed to prevent reoccurrence.
- E. A report certifying there were no excess emissions, if that is the case.

(40) **Semiannual Reporting** [06-096 CMR 140]

- A. The licensee shall submit to the Department semiannual reports which are due **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
- B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the periodic monitoring required by this license.
- D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

For the purpose of reports pertaining to TRS emissions from the Lime Kiln as required under 40 CFR §60.7(c), the Mill shall report semiannually periods of excess TRS emissions from the Lime Kiln for all 12-hour average TRS concentrations above 8 ppm by volume. [40 CFR Part 60, Subpart BB §60.284]

(41) **Annual Compliance Certification**

Rumford Paper Company shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due **January 31** of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on stack testing or monitoring data required by this license. When the license does not require such data or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance shall be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 CMR 140]

(42) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either of the following:

- A. A computer program and accompanying instructions supplied by the Department; or
- B. A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted by the date as specified in 06-096 CMR 137. [06-096 CMR 137]

(43) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

| <u>Origin and Authority</u> | <u>Requirement Summary</u> | <u>Enforceability</u> |
|-----------------------------|----------------------------------|---------------------------|
| 06-096 CMR 102 | Open Burning | - |
| 06-096 CMR 109 | Emergency Episode Regulation | - |
| 06-096 CMR 110 | Ambient Air Quality Standard | - |
| 06-096 CMR 116 | Prohibited Dispersion Techniques | - |
| 38 M.R.S.A. §585-B, §§5 | Mercury Emission Limit | Enforceable by State-only |

(44) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. [40 CFR, Part 82, Subpart F]

(45) **Asbestos Abatement**

When undertaking Asbestos abatement activities, Rumford Paper Company shall comply with 40 CFR Part 61, Subpart M, *Standard for Asbestos Demolition and Renovation*.

(46) **Expiration of a Part 70 license**

- A. Rumford Paper Company shall submit a complete Part 70 renewal application at least six months but no earlier than 18 months prior to the expiration of this air emission license.
- B. Pursuant to Title 5 MRSA §10002 and 06-096 CMR 140, the Part 70 license shall not expire, and all terms and conditions shall remain in effect until the Department takes final action on the Part 70 license renewal application. An existing source submitting a complete renewal application under 06-096 CMR 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

Rumford Paper Company
Oxford County
Rumford, Maine
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(47) New Source Review

Rumford Paper Company is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 CMR 140 Air Emission License A-214-70-G-R/A expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 13 DAY OF February, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Max Allen Robert Case for
PATRICIA W. AHO, COMMISSIONER

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

[Note: If a renewal application, determined by the Department as complete, is submitted at least six months but no earlier than 18 months prior to expiration, then pursuant to Title 5 MRSA §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 11/21/2007

Date of application acceptance: 11/29/2007

Date filed with the Board of Environmental Protection:

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.

