STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

ND OTM LLC **Penobscot County** **Old Town, Maine** **A-180-77-12-A**	**Departmental** **Findings of Fact and Order** **New Source Review** **NSR #12**

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

FACILITY	ND OTM LLC
LICENSE TYPE	06-096 C.M.R. ch. 115, Minor Modification
NAICS CODES	322110 Wood Pulp Manufacturing 221119 Electric Power Generation
NATURE OF BUSINESS	Pulp Manufacturing
FACILITY LOCATION	24 Portland Street, Old Town, Maine

B. NSR License Description

ND OTM LLC (ND Paper, ND OTM, The Old Town Mill, The Mill) has requested a New Source Review (NSR) license to undertake a series of improvement projects around the pulp and liquor cycle operations. This includes recommissioning the smaller digester to allow both digesters to operate in parallel and completing process improvements and optimizations around the Lime Kiln and Pulp Dryer.

C. Emission Equipment

The following existing equipment is modified by this project:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Fuel Type, % sulfur
Lime Kiln	64 MMBtu/hr	Natural gas, negligible
		#6 Fuel Oil/Waste Oil, 0.5%

Process Equipment

Equipment	Production Rate	Pollution Control Equipment
Digester System	Supporting pulp production for 2.57 MMlb/day black liquor solids	LVHC system
Pulp Dryer	220,825 ADTP/year	None

The following existing equipment is affected, but not modified, by this project:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Fuel Type
#4 Recovery Boiler	2.57 MMlb/day black liquor solids, 375 MMBtu/hr	Black liquor solids, #6 fuel oil, distillate fuel

Process Equipment

Equipment	Production Rate	Pollution Control Equipment
Brownstock Washers	Supporting pulp production for 2.57 MMlb/day black liquor solids	HVLC System
Evaporators	Supporting pulp production for 2.57 MMlb/day black liquor solids	LVHC System
Smelt Dissolving Tank	Supporting pulp production for 2.57 MMlb/day black liquor solids	Scrubber

D. Project Description

The two continuous digesters at the Old Town Mill were originally installed to run in parallel. This configuration was modified in 2007 to operate them in series, with the first digester (K-2, originally installed in 1975) serving as an impregnation vessel which pre-cooked the wood chips before they entered the second, larger digester (K-1, originally installed in 1965) which served as a traditional continuous digester. This unique configuration has proven infeasible to operate. ND OTM returned the two digesters to their original configurations to allow the units to run in parallel as two distinct systems. Currently, the smaller K-2 digester is isolated, and ND OTM has only operated the larger K-1 digester.

ND OTM has proposed recommissioning the smaller K-2 digester to reestablish it as a standalone unit as originally designed and installed. Returning the K-2 digester to its

original parallel configuration will require process modifications including the re-installation of once existing pumps and piping modifications. The project will also include the upgrade of two additional feet of wash screens to allow for a more uniform product and reduce the quantity of undercooked wood chips. These process modifications and improvements will allow the K-2 digester to operate independently and in parallel with the K-1 digester.

To support the pulp production from dually operated digesters, ND OTM is also proposing process optimizations and efficiency improvements for the Kraft Pulp Dryer. These optimizations include efficiency improvements, air and drying system modifications, cooling section modifications, controls system optimization, motors, pumps, and drives.

ND OTM is also proposing to replace the Lime Kiln burner with an in-kind replacement that will match the rated heat input capacity of the existing burner while resolving operational issues. Additional proposals include other Lime Kiln and recausticizing process optimizations, including repair and deferred maintenance, to allow the mill to operate at its original design capacity, including the addition of a dregs filter, replacement of the slaker agitator, addition of a two-speed gearbox for fresh lime addition, a partial borate auto-causticizing system, a material separator, and other process optimizations and improvements as described in the application.

The combination of process improvements to the digesters, Kraft Pulp Dryer, and Lime Kiln are projected to result in an annual production rate of 220,825 tons of air-dried unbleached pulp (ADUBP). This is below the historic baseline production rate of 227,425 tons of ADUBP per year in 2003-2005, but an increase over the more recent production rate of 194,821 tons of ADUBP per year in the 2010-2012 baseline period.

E. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for the recommissioning of the K-2 digester and process improvements and optimizations of the Kraft Pulp Dryer and Lime Kiln does not violate any applicable federal or state requirements and does not reduce monitoring, reporting, testing, or recordkeeping requirements.

The modification of a major source is considered a major or minor modification based on whether or not expected emissions increases exceed the “Significant Emission Increase” levels as given in *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. For a major stationary source, the expected emissions increase from each new, modified, or affected unit may be calculated as equal to the difference between the post-modification projected actual emissions and the baseline actual emissions for each NSR regulated pollutant.

1. Baseline Actual Emissions

Baseline actual emissions (BAE) are equal to the average annual emissions from any consecutive 24-month period within the ten years prior to submittal of a complete license application. ND OTM has proposed using July 1, 2010, through June 30, 2012, as the 24-month baseline period from which to determine baseline actual emissions for all pollutants for emission units affected as part of this project.

BAE for the Digesters, Brownstock Washers, Evaporators, Recovery Boiler, Smelt Dissolving Tank, Kraft Pulp Dryer, and Lime Kiln were calculated using records of pulp production, fuel usage, equipment operating hours, and emission rates based on Continuous Emissions Monitoring System (CEMS) data, stack testing data, licensed emission limits, and published emission factors.

The results of this baseline analysis are presented in the table below.

Baseline Actual Emissions (7/2010 – 6/2012 Average)

Equipment	PM (tpy)	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	SO_2 (tpy)	TRS (tpy)	NO_x (tpy)	CO (tpy)	VOC (tpy)
Digesters/Brownstock Washers/Evaporators	--	--	--	0.66	--	--	--	--
Digesters	--	--	--	--	1.71	--	--	1.67
Brownstock Washers	--	--	--	--	0.13	--	--	0.19
Evaporators	--	--	--	--	1.76	--	--	0.03
Pulp Dryer	--	--	--	--	--	--	--	6.39
Recovery Boiler	48.84	37.15	25.47	26.60	16.67	294.95	60.10	132.22
Smelt Dissolving Tank	16.29	14.70	12.52	0.13	1.01	0.26	0.26	0.26
Lime Kiln	51.64	50.60	49.57	29.24	22.29	14.91	8.72	24.37
Total	**116.76**	**102.46**	**87.56**	**56.63**	**43.56**	**310.12**	**69.07**	**165.12**

2. Projected Actual Emissions

Projected actual emissions (PAE) are the maximum actual annual emissions anticipated to occur in any one of the five years (12-month periods) following the date existing units resume regular operation after completion of the project or any one 12-month period in the ten years following completion of the project if the project involves increasing the unit's design capacity or its potential to emit of a regulated pollutant.

Projected actual emissions were determined by scaling up pulp production, Lime Kiln natural gas usage, and equipment operating hours proportionally with the anticipated production increase over the baseline period. The black liquor solid (BLS) production

and firing rate was determined using a mass balance approach based on digester design, wood species, Kappa number, percent solids of fired liquor, and chemical usage.

Projected actual emissions from the modified and affected equipment are shown below.

Projected Actual Emissions

Equipment	PM (tpy)	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	SO_2 (tpy)	TRS (tpy)	NO_x (tpy)	CO (tpy)	VOC (tpy)
Digesters/Brownstock Washers/Evaporators	--	--	--	0.70	--	--	--	--
Digester	--	--	--	--	1.93	--	--	1.89
Brownstock Washers	--	--	--	--	0.14	--	--	0.22
Evaporators	--	--	--	--	2.0	--	--	0.03
Pulp Dryer	--	--	--	--	--	--	--	56.31
Recovery Boiler	53.13	40.42	27.71	28.94	18.13	320.88	65.38	143.85
Smelt Dissolving Tank	17.72	15.99	13.62	0.14	1.10	0.26	0.26	0.26
Lime Kiln	58.50	57.33	56.16	33.12	23.21	16.89	9.88	27.60
Total	**129.35**	**113.74**	**97.49**	**62.91**	**46.52**	**338.04**	**75.52**	**230.16**

3. Emission Adjustments

In determining projected actual emissions, ND OTM excluded increases in emissions that the existing equipment could have accommodated during the baseline period and are unrelated to the proposed project. This is known as the Demand Growth Exclusion.

To determine how much of the emissions increases are attributable to the project versus market demand, ND OTM looked at what emissions would have been generated if additional orders for unbleached pulp had been received.

During the baseline period, the Mill produced bleached kraft pulp exclusively, due to market demands. At any point, the Mill could have produced unbleached product if the market had been favorable to do so. This change in product from bleached to unbleached pulp is not precluded by ND OTM's Air Emission License and could have occurred at any point during the baseline period. The additional VOC emissions that would have occurred if the facility had produced unbleached pulp can be excluded, since they could have been accommodated during the baseline period and are unrelated to the digester and process improvement project pursuant to 40 C.F.R. § 52.21(b)(41).

Based on the analysis outlined above, the following emissions are excludable under the Demand Grown Exclusion:

Demand Growth Exclusion Emissions Adjustments

Equipment	PM (tpy)	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	SO_2 (tpy)	TRS (tpy)	NO_x (tpy)	CO (tpy)	VOC (tpy)
Kraft Pulp Dryer	--	--	--	--	--	--	--	43.32

4. Emissions Increases

Emissions increases are calculated by subtracting BAE and excludable emissions from the PAE. The emission increase is then compared to the significant emissions increase levels.

Pollutant	Baseline Actual Emissions 7/2010 – 6/2012 (ton/year)	Projected Actual Emissions (ton/year)	Excludable Emissions (ton/year)	Emissions Increase (ton/year)	Significant Emissions Increase Levels (ton/year)
PM	116.76	129.35	0.0	12.59	25
PM_{10}	102.46	113.74	0.0	11.28	15
$PM_{2.5}$	87.56	97.49	0.0	9.93	10
SO_2	56.63	62.91	0.0	6.28	40
TRS	43.56	46.52	0.0	2.96	10
NO_x	310.12	338.04	0.0	27.92	40
CO	69.07	75.52	0.0	6.45	100
VOC	165.12	230.16	43.32	21.72	40

5. Classification

Since emissions increases do not exceed significant emissions increase levels, the proposed project addressed in this NSR license is determined to be a minor modification under *Minor and Major Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115. An application to incorporate the requirements of this NSR license into the Part 70 air emission license shall be submitted no later than 12 months from commencement of operations associated with the project.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in

Definitions Regulation, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts. A summary of the BACT analyses for the units modified by this project is presented below.

B. Digesters

Air emissions from the Digesters include total reduced sulfur (TRS), hazardous air pollutants (HAPs), and volatile organic compounds (VOC). Gases are collected by a low volume high concentration (LVHC) non-condensable gas (NCG) closed vent collection system and combusted in the Lime Kiln, #5 Power Boiler, or Biomass Boiler to oxidize the TRS into SO_2. The incineration of the LVHC NCGs in any combustion unit provides maximum control of TRS, HAPs, and VOC with 95% - 99% control efficiency, and is considered BACT for the emissions from these digesters.

As described in ND OTM's current Air Emission License (A-180-70-A-I, issued 12/2/2009), the Digesters are subject to 40 C.F.R. Part 62, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*, and 06-096 C.M.R. ch. 124, *Total Reduced Sulfur Control form Kraft Pulp Mills.* The Digesters will continue to be subject to all applicable requirements.

C. Kraft Pulp Dryer

ND OTM identified PM and VOC as the primary air emissions from the Kraft Pulp Dryer.

The quantity of PM from pulp dryers is difficult to measure due to low PM concentrations and high exhaust gas flow rates. Particle size is difficult to determine due to entrained water vapor. There are no reliable PM emission estimates available for pulp dryers; therefore, consistent with Department precedent, it is not possible to quantify PM emissions.

VOC are evaporated out of the wet pulp in the dryer. The Pulp Dryer exhaust is a high volume, moisture-laden stream with a low VOC concentration. Potential control technologies include add-on pollution control technologies such as carbon absorption, biofiltration, and thermal oxidation. The emission factor used to calculate VOC emissions from the Kraft Pulp Dryer are inclusive of any VOC-containing chemical additives.

Carbon absorption systems capture VOC from a gas stream onto an activated carbon bed or filter media. Potential PM emissions from the Pulp Dryer would impede VOC absorption, and therefore PM controls would be required prior to the absorption system,

which would be technically challenging due to the high-volume, moisture-laden exhaust gas characteristics. Carbon absorption is not considered technically feasible to control VOC emissions from the Kraft Pulp Dryer.

Microbial biofiltration is a control technology that uses a biofilter comprised of compost, bark much, or soil to absorb VOC from the exhaust stream. The captured VOC are converted by microbial metabolism to form carbon dioxide and water. Due to the use of bacteria and other microbes, these systems are inherently fragile and susceptible to microbial die-off during extended periods of downtime (such as a plant outage), or due to swings in temperature, VOC loading, and moisture levels. Due to the fragility of microbial biofiltration, this is not considered a technically feasible technology for controlling VOC from the Kraft Pulp Dryer.

Thermal oxidation raises the temperature of the exhaust stream to combust or pyrolyze the VOC into carbon dioxide and water. Thermal oxidation options include direct thermal oxidation, regenerative and recuperative thermal oxidation, and catalytic oxidation. Regenerative and recuperative thermal oxidizers (RTOs) are well suited for high-volume, low VOC concentration exhaust streams and require a hot exhaust gas from which to capture heat. The exhaust from the Pulp Dryer does not contain enough thermal energy to properly operate an RTO without use of supplemental heat. Direct thermal oxidizers require the combustion of fuel to achieve the temperatures necessary to destroy the VOC. Due to the moisture-laden nature of the exhaust stream, RTOs and direct thermal oxidation are not environmentally feasible options, as emissions from combustion of the amount of fuel necessary to operate the control equipment would outweigh the environmental benefits of the controlled VOC emissions. Catalytic oxidation uses a catalyst which can become fouled by moisture and PM emissions. Catalytic oxidation is considered technically infeasible for the Kraft Pulp Dryer.

D. Lime Kiln

Lime kilns are designed to calcinate calcium carbonate to produce calcium oxide (quicklime) with heat provided by fuel combustion. Emissions include PM, SO_2, TRS, NO_x, CO, and VOC.

1. PM, PM_{10}, and $PM_{2.5}$ Emissions

Combustion gases in the Lime Kiln pick up particulate matter from sodium sulfate and sodium carbonate carryover of solids or the sublimation and condensation of inorganic chemicals. PM emissions can be controlled by fabric filters, electrostatic precipitators (ESPs), or wet scrubbers. Fabric filters are technically infeasible for lime kiln applications due to the moisture-laden exhaust stream, which would cause caking and fouling of the filter materials.

ESPs and wet scrubbers are both technically feasible control options for PM emissions from the Lime Kiln. The Lime Kiln at the Old Town Mill is currently equipped with a venturi wet scrubber, which provides control of emissions of both PM and SO_2, whereas ESPs only control PM emissions and do not provide any SO_2 control.

ND OTM has proposed the continued use of the existing venturi wet scrubber and continued compliance with existing licensed emission limits of 0.13 gr/DSCF corrected to 10% O_2 and 32.9 lb/hr as BACT for PM, PM_{10}, and $PM_{2.5}$ emissions from the Lime Kiln.

2. SO_2 Emissions

SO_2 emissions from lime kilns are generated by fuel combustion and when the system is used as a control device for NCGs. Lime mud also contains a small amount of sulfur that converts to SO_2 during oxidation. SO_2 emissions are controlled by the Lime Kiln design and the regenerated quicklime, which acts as a scrubbing agent. Further SO_2 removal is achieved in the venturi scrubber. In addition, the Lime Kiln primarily combusts natural gas, an inherently low sulfur fuel, with fuel oil limited to 0.5% sulfur by weight as a back-up fuel. This SO_2 control is consistent with lime kilns of similar size, and design.

ND OTM has proposed the continued use of a venturi scrubber, the use of low sulfur fuels, and continued compliance with an existing licensed emission limit of 7.1 lb/hr as BACT for SO_2 emissions from the Lime Kiln.

3. NO_x Emissions

NO_x emissions from lime kilns are generated from burning fossil fuel. Potential control technologies for NO_x emissions from lime kilns include selective non-catalytic reduction (SNCR), selective catalytic reduction (SCR), flue gas recirculation (FGR), low NO_x burners, and good combustion practices.

SNCR chemically reduces NO_x into molecular nitrogen (N_2) and water vapor. A nitrogen based reducing agent such as ammonia or urea is injected into the post-combustion flue gas. The desired reduction reactions occur most readily at temperatures ranging from 870 to 1150 °C. This temperature window occurs mid-length inside the rotating body of the Lime Kiln. Locating ammonia or urea injection nozzles in this area of the Lime Kiln is not technically feasible.

SCR also chemically reduces NO_x into N_2 and water vapor and uses a nitrogen based reducing agent which is injected into the post combustion flue gas. The flue gas mixes with the reagent and diffuses through a catalyst bed. The reagent reacts selectively with the NO_x within a specific temperature range in the presence of the catalyst and oxygen. The optimum temperature range depends on the catalyst and flue gas composition, and

could range from 250 to 430 °C. Because the flue gases leaving the Lime Kiln are laden with lime mud dust as well as known catalyst deactivators (sodium, phosphorus, and potassium), the catalyst bed has the potential to plug and deactivate. Therefore, SCR is not considered technically feasible.

FGR reduces NO_x emissions by recirculating a portion of the combustion flue gas into the main combustion chamber. This process reduces the peak combustion temperature and lowers the available oxygen in the combustion air/flue gas mixture, thus reducing the formation of thermal NO_x caused by high flame temperatures. Reducing the flame temperature, however, decreases the radiant heat transfer to the calcium carbonate in the kiln and reduces the conversion efficiency of calcium carbonate into lime. This conversion is integral to the Kraft chemical recovery process. Therefore, FGR is not considered technically feasible.

Low NO_x burners use flame geometry control and staged fuel-to-air mixing to lower the peak burner flame temperature, thereby reducing the formation of thermal NO_x. The systems are designed to delay fuel and air mixing, reduce flame turbulence, and ensure fuel rich initial combustion zones. Adjusting the flame shape and/or temperature could hinder the lime production process and make the system less efficient overall. In addition, the lower flame temperature in low NO_x burners may result in unburned carbon carryover into the lime, which would negatively impact the product quality. Installation of a low NO_x burner would require significant conversion of the duct work, fuel handling system, and burner system to accommodate the extensive controls required for maintaining low NO_x burner performance. The installation would be further complicated by the age of the existing Lime Kiln and use of multiple fuels. The installation and use of low NO_x burners is not considered technically feasible.

Good combustion practices ensure the proper excess air range in the Lime Kiln for controlling fuel NO_x formation while combusting fuel oil and properly monitoring the process and dry end temperature to minimize thermal NO_x formation while combusting natural gas.

ND OTM has proposed the use of good combustion practices and continued compliance with the existing licensed limits of 170 ppm and 36.0 lb/hr as BACT for NO_x emissions from the Lime Kiln.

4. VOC, TRS, and CO Emissions

VOC, TRS, and CO emissions are primarily products of incomplete combustion in the Lime Kiln. Some VOC enter the kiln with the lime mud liquid and are released as the mud is heated. A small portion of VOC may be stripped from the scrubber makeup water by hot flue gases. The majority of TRS from the LVHC and HVLC NCGs are oxidized to SO_2, but some TRS may remain if combustion is not complete. Additional

TRS can be produced when sulfur in the mud comes into contact with carbon dioxide-rich flue gases.

Control technologies for minimizing VOC, TRS, and CO emissions include increasing residence time, oxygen content, temperature, and turbulence in the Lime Kiln. Oxidation catalysts are a proven control technology for minimizing incomplete combustion emissions, but catalyst fouling by moisture and PM emissions make it technically infeasible for lime kiln application prior to the wet scrubber. Installation of an oxidation catalyst after the wet scrubber would require reheating the flue gas, which would create additional emissions of combustion pollutants. Therefore, the use of an oxidation catalyst is not considered either technically or environmentally feasible.

ND OTM has proposed the continued use of a venturi wet scrubber and continued compliance with the existing licensed TRS emission limits of 20 ppm and 5.3 lb/hr as BACT for TRS emissions from the Lime Kiln.

ND OTM has proposed the use of good combustion practices and the continued compliance with existing licensed emission limits of 81.7 lb/hr for CO and 1.2 lb/hr for VOC as BACT.

E. Future Project Emissions Reporting

Following completion of the projects described in this NSR license, actual emissions of certain regulated NSR pollutants from emissions units that are modified or affected by the projects are required to be tacked on an annual basis, per 40 C.F.R. § 52.21(r)(6). This requirement pertains to any regulated NSR pollutant that could increase as a result of the project and that is emitted by emissions units whose emissions of a regulated NSR pollutant could be affected by the project. Specifically, these obligations pertain to any regulated NSR pollutant emitted from existing emissions units at the mill modified or affected by the project for which there is a reasonable possibility that this project may result in a significant increase of such pollutant. For the purposes of this Subpart, per 40 C.F.R. § 52.21(r)(6)(vi), a *reasonable possibility* occurs when the facility's calculations show the project will result in a projected actual emissions increase of at least 50% of the amount defined as a "significant emissions increase" in 40 C.F.R. § 52.21(b)(40) for the regulated pollutant.

For the project described in this NSR, PM, PM_{10}, $PM_{2.5}$, NO_x, and VOC have calculated future actual emissions increases that are at least 50% of the significant emissions increase levels.

ND OTM shall monitor the emissions of PM, PM_{10}, $PM_{2.5}$, NO_x, and VOC from each emissions unit modified or affected by the project described in this NSR license, and shall calculate and maintain records to document the annual emissions, in tons per year on a calendar year basis, for a period of 10 years following resumption of regular operations after the change.

ND OTM shall submit a report to the Department if the annual emissions, in tons per year, from the project described in this NSR, exceed the baseline actual emissions, excluding any emissions increase unrelated to the project and due to demand growth, by an amount greater than the significant increase thresholds, and if such emissions differ from the preconstruction projection as documented in this license. Such report shall be submitted within 60 days after the end of such year. The report shall contain the following:

1. The name, address, and telephone number of the facility;

2. The annual emissions as calculated pursuant to 40 C.F.R. § 52.21(r)(6)(iii); and

3. Any other information ND OTM wishes to include in the report (e.g., and explanation as to why the emissions differ from the preconstruction projection).

ND OTM shall make the information required to be documented and maintained pursuant to 40 C.F.R. § 52.21(r)(6) available for review by the Department or the general public pursuant to the requirements contained in 40 C.F.R. § 70.4(b)(3)(viii).

[40 C.F.R. § 52.21(r)]

F. Incorporation Into the Part 70 Air Emission License

Per *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140 § 1(C)(8), for a modification at the facility that has undergone NSR requirements or been processed through 06-096 C.M.R. ch. 115, the source must apply for an amendment to their Part 70 license within 12 months of commencing the proposed operations, as provided in 40 C.F.R. Part 70.5.

G. Annual Emissions

This license will not change the facility's estimated maximum annual emissions, used for the purposes of calculating the facility's annual air license fee.

III. AMBIENT AIR QUALITY ANALYSIS

The Old Town Mill previously submitted an ambient air quality impact analysis outlined in air emission licenses A-180-77-4-A (dated October 12, 2012) and A-180-77-5-A (dated March 19, 2013) demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (AAQS). An additional ambient air quality impact analysis is not required for this NSR license.

ORDER

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

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

The Department hereby grants New Source Review License A-180-77-12-A pursuant to the preconstruction licensing requirements of 06-096 C.M.R. ch. 115 and subject to the specific conditions below.

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.

SPECIFIC CONDITIONS

(1) ND OTM is authorized to recommission the K-2 Digester to operate independently from the K-1 Digester, perform a replacement of the Lime Kiln burner as described in the application, and to complete the process improvements and optimizations of the Lime Kiln and Kraft Pulp Dryer as described in this NSR license. ND OTM shall continue to comply with all applicable emission limits contained in the facility's current Air Emission License and amendments.

(2) Future Project Emissions Reporting

A. ND OTM shall monitor, calculate, and maintain a record of the annual emissions of PM, PM_{10}, $PM_{2.5}$, NO_x, and VOC from the Lime Kiln, Digester System, Pulp Dryer, #4 Recovery Boiler, Brownstock Washers, Evaporators, and Smelt Dissolving Tank in tons per year on a calendar year basis, for a period of 10 years following resumption of regular operations after the change.

B. ND OTM shall submit a report to the Department if the annual emissions, in tons per year, from the project described in this NSR, exceed the baseline actual emissions, excluding any emissions increase unrelated to the project and due to demand growth, by an amount greater than the significant increase thresholds defined in 40 C.F.R. § 52.21(b)(23)(i), and if such emissions differ from the preconstruction projection as documented in this license. Such report shall be submitted within 60 days after the end of such year. The report shall contain the following:

1. The name, address, and telephone number of the facility;

2. The annual emissions as calculated pursuant to 40 C.F.R. § 52.21(r)(6)(iii); and

3. Any other information ND OTM wishes to include in the report (e.g., and explanation as to why the emissions differ from the preconstruction projection).

[40 C.F.R. § 52.21(r)]

(3) ND OTM shall submit an application to incorporate this NSR license into the facility's Part 70 Air Emission License no later than 12 months from commencement of the requested operation. [06-096 C.M.R. ch. 140 § 1(C)(8)]

DONE AND DATED IN AUGUSTA, MAINE THIS 14th DAY OF SEPTEMBER, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for ____
MELANIE LOYZIM, ACTING COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 1, 2020
Date of application acceptance: July 7, 2020

Date filed with the Board of Environmental Protection:

This Order prepared by Benjamin Goundie, Bureau of Air Quality.

FILED

SEP 14, 2020

State of Maine
Board of Environmental Protection