238 P 008

Memorandum

To: City of Portland, City Clerk's Office

From: Mark Arienti, Regional Waste Systems MA

Date: October 1, 2003

Re: DRAFT Part 70 Air Emissions License

Please find attached a copy of the DRAFT Part 70 Air Emissions License issued by the Maine Department of Environmental Protection. This DRAFT is provided for public review during the 30-day public comment period as required by law.

Regional Waste Systems Inc. **Cumberland County** **Portland, Maine** **A-283-70-A-I**	))))	**Departmental** **Findings of Fact and Order** **Part 70 Air Emission License**

After review of the Initial Part 70 License application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Regional Waste Systems, Inc. (RWS)
LICENSE NUMBER	A-283-70-A-I
LICENSE TYPE	Initial Part 70 License
NAICS CODES	562213 (Solid Waste Combustors and Incinerators)
NATURE OF BUSINESS	Municipal Waste Combustion
FACILITY LOCATION	64 Blueberry Rd, Portland
DATE OF LICENSE ISSUANCE	
LICENSE EXPIRATION DATE	

B. Emission Equipment

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

EMISSION UNIT ID	UNIT CAPACITY	UNIT TYPE
Municipal Waste Combustor A	275 tons per day	Massburn Resource Recovery
Municipal Waste Combustor B	275 tons per day	Massburn Resource Recovery
Diesel Generator	5.25 MMBtu/hr	Fuel burning, emergency equipment
Ash Handling	---	Process equipment

RWS has additional insignificant activities which are not required to be listed in the emission equipment table above, but are listed in the Part 70 application and in Appendix B of Chapter 140 of the Department's regulations.

C. Application Classification

The application for RWS does not include the licensing of increased emissions or the installation of new or modified equipment, therefore, the license is considered to be an Initial Part 70 License issued under Chapter 140 for a Part 70 source.

II. EMISSION UNIT DESCRIPTION

A. Facility Description and General Facility Requirements

RWS consists of two MWC (municipal waste combustor)/boiler trains, each having a design maximum continuous rating of 250 tons/day of municipal solid waste. The boilers produce superheated steam to generate electricity.

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

CITATION	REQUIREMENT SUMMARY
Chapter 101	Visible Emissions
Chapter 102	Open Burning
Chapter 103	Fuel Burning Equipment Particulate Emission Standard
Chapter 104	Incinerator Particulate Emission Standard
Chapter 106	Low Sulfur Fuel
Chapter 109	Emergency Episode Regulation
Chapter 110	Ambient Air Quality Standard
Chapter 116	Prohibited Dispersion Technique
Chapter 117	Source Surveillance
Chapter 121	Emission Limitations and Emission Testing of Resource Recovery Facilities
Chapter 130	Solvent Degreasers
Chapter 137	Emission Statements
Chapter 138	NO_X RACT (Reasonably Available Control Technology for Nitrogen Oxides)
Chapter 140	Part 70 Air Emission License Regulation
Chapter 143	New Source Performance Standards
40 CFR Part 60 Subparts A, Db, E, and Cb	Subpart A – General Provisions, Subpart Db – Standards of Performance for Industrial Commercial Institutional Seam Generating Units; Subpart E – Standards of Performance for Incinerators, and Subpart Cb – Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that were constructed on or before Sept. 20, 1994

B. Municipal Waste Combustors A and B

Unit Size and Age
Municipal Waste Combustors (MWC) A and B were manufactured by L & C Steinmuller GmbH in 1987 with an operating capacity of 275 tons per unit municipal solid waste per day firing municipal solid waste including waste types 0, 1, 2, 3, & 6 (as defined in Chapter 100 of the Department's regulations). In addition, MWCs A and B have auxiliary burners rated at 46.75 MMBtu/hr that fire natural gas.

The units each have an electrostatic precipitator (ESP). Particulate matter is controlled from each MWC by a multiclone followed by the ESP. Sulfur dioxide emissions are controlled by a spray dryer and the ESP. Each unit has Selective Non-Catalytic Reduction (SNCR) technology for the control of NO_X, installed in 1999/2000. A powdered activated carbon injection system was licensed in October of 2000 and is now in operation to remove mercury (Hg) and dioxin/furans (PCDD/PCDF -Polychlorinated Dibenzo-Dioxin/Polychlorinated Dibenzo-Furan) from the flue gas stream of the two combustors.

The operation of MWCs A and B shall be limited to a combined annual capacity factor of 10% or less for natural gas, as specified under 40 CFR Part 60, Subpart Db, such that RWS is not subject to the NO_X emission limits as specified under 60.44b. The annual capacity factor for each boiler shall be calculated in accordance with 40 CFR Part 60, Subpart Db.

Waste Combustor Monitors
RWS has installed continuous mass emission rate monitors (CERMs) for NO_X, SO_2, and CO in each air emission stack at the facility. The CERMs are a system of analyzers that measure both the flow rate of the exhaust gas and the concentration of a specific pollutant. The concentration of the specified pollutant is obtained through a continuous emission monitoring system (CEMS) measuring the pollutant on a parts per million basis. With both the exhaust flow rate and the concentration, the system can then produce a mass emission rate for the specific pollutant from the specified stack.

RWS has proposed to conduct a year long technical evaluation of the CERMS data. The mass emissions calculated from the data collected by the CERMS shall be compared to other alternative methods. The operation of the CERMS shall be in accordance with a written protocol approved by the Department. Within two months from the end of the data collection, RWS shall submit the full evaluation with a proposal to either retain the CERMS for use in calculating mass emissions, or discontinue the use of the CERMS and calculate mass emissions based on an alternative method.

Streamlining
Particulate Matter (PM)

RWS accepts streamlining for particulate matter requirements. MEDEP Chapters 103, 104, 121, 143, 40 CFR Subparts Db and E, and Best Practical Treatment (BPT) limits are applicable. The BPT particulate matter limits are the most stringent. Therefore, only the BPT limits are included in this license.

Nitrogen Oxide (NO_X)
RWS accepts streamlining for nitrogen oxide requirements. Chapter 121, Chapter 138, and BACT requirements are applicable. The BPT limit for nitrogen oxide is the most stringent. Therefore, only the NO_X BPT requirements are included in this license.

Monitoring
RWS accepts streamlining for data collection requirements and monitor up-time for operation of its COMS and CEMS. Chapter 121 and Chapter 117 are applicable. Chapter 117 requirements for data collection and COMS and CEMS uptime are the most stringent; therefore, the requirements for data collection and monitor up-time in Chapter 117 are included in this license.

Periodic Monitoring
Periodic monitoring shall consist of the instrumental monitoring and recordkeeping requirements in Chapter 117 (Source Surveillance) and Chapter 121 of the Department's regulations. Periodic monitoring includes maintaining fuel use records and maintaining records of pollution control equipment inspection and maintenance.

C. Emergency Generator

The emergency generator was manufactured by Cummins Engine Company, Inc. and has a maximum capacity of 5.25 MMBtu/hr firing 37.5 gallons of diesel fuel per hour, with a maximum sulfur content of 0.05%.

Streamlining
Opacity
RWS accepts streamlining for opacity requirements. Chapter 101, Section 2(C) and BPT requirements are applicable. The BPT opacity limit is the most stringent. Therefore, only the BPT limit is included in this license for the emergency generator.

Sulfur Dioxide (SO_2)
RWS accepts streamlining for sulfur dioxide requirements. Chapter 106 and BPT requirements are applicable. The BPT sulfur dioxide limit is the most stringent. Therefore, only the most stringent BPT limit is included in this license.

Periodic Monitoring

Periodic Monitoring consists of recordkeeping including fuel receipts indicating sulfur content of the fuel and hours of operation.

D. Ash Loadout Building

The ash loadout building includes ash conveyors and the truck loading conveyors.

Streamlining
Opacity
RWS accepts streamlining for opacity requirements. Chapter 101, Section 2(C) and Chapter 121 are applicable. The Chapter 121 opacity limit is the most stringent. Therefore, only the most stringent Chapter 121 requirements are included in this license.

Periodic Monitoring
Periodic monitoring shall consist of the monitoring and recordkeeping requirements in Chapter 121 of the Department's regulations.

E. Solvent Degreaser

RWS operates a cold cleaning degreaser.

Periodic Monitoring
Periodic monitoring for the degreaser unit shall consist of recordkeeping in accordance with Chapter 130 of the Department's Regulations including records of solvent added and removed.

F. Lime Silo Vent Baghouse

RWS has a vertical lime silo with a bin vent baghouse which separates lime dust from the air used for conveying. Although emissions are estimated to be less than 1 ton/year from the baghouse, without the baghouse the source is not insignificant.

Streamlining
Opacity
RWS accepts streamlining for opacity requirements. Chapter 101, Section 2(C) and BPT requirements are applicable. The BPT opacity limit is the most stringent. Therefore, only the BPT limit is included in this license for the lime silo vent baghouse.

Periodic Monitoring
Periodic Monitoring consists of documenting maintenance on the lime silo vent baghouse.

G. Annual Facility Emissions

The following annual emissions are used to assess the facility's annual air emission license fee. The emissions are based on the short term (lb/hr) limits for the MWC units and operations of 8760 hours/year, and the emergency generator operating 500 hours/year.

Total Annual Emissions for the Facility (ton/year)
(Used to calculate the annual license fee)

Pollutant	MWC A and B total	Emergency Generator	**Total Facility TPY**
PM	30	0.2	**30.2**
PM_{10}	30	0.2	**30.2**
SO_2	96.8	0.08	**96.8**
NO_x	431.2	5.7	**436.9**
CO	145.8	1.3	**147.1**
VOC	13.1	0.5	**13.6**

III. AIR QUALITY ANALYSIS

There have been no emissions increases to the facility; therefore, the existing ambient air quality analysis performed for RWS in Air Emission License A-283-71-A-N and the additional ambient air quality analysis performed August 2000, which demonstrated compliance with Maine Ambient Air Quality Standards and Class I and Class II Increments, is sufficient for this initial Part 70 Air Emission License.

The ambient air quality analysis performed in August 2000 is documented below:

A. Overview

Refined modeling was performed to show that Regional Waste System's (RWS) emissions, in conjunction with other sources, would not cause or contribute to violations of Maine Ambient Air Quality Standards (MAAQS) for Sulfur Dioxide (SO_2), Particulate Matter (PM_{10}), Nitrogen Dioxide (NO_2), Carbon Monoxide (CO), Lead (Pb), Chromium (Cr) and hexavalent Chromium (Cr^6) or to Class II increments for SO_2, PM_{10}, NO_2 and CO.

B. Model Inputs

The ISCST3 model was used in refined simple terrain mode to address standards and increments in all areas. In addition, the Valley mode of the COMPLEX I

model (CI-VM) was used to evaluate impacts in intermediate and complex terrain, i.e., areas where terrain elevations exceed the proposed stack-top elevations. Since the applicant's stacks are greater than H + 0.5L (where H is the height of the controlling structure and L is the lesser of the height or maximum projected width of that structure), no cavity analysis was performed.

All modeling was performed in accordance with all applicable requirements of the Maine Department of Environmental Protection, Bureau of Air Quality (MEDEP-BAQ) and the United States Environmental Protection Agency (USEPA).

A valid 5-year hourly meteorological off-site database was used for the refined modeling. The wind data was collected at a height of 10.00 meters at the Portland Jetport National Weather Service (NWS) site during the 5-year period 1987-1991. Missing data were interpolated or coded as missing. Hourly cloud cover, ceiling height and surface wind speed data also from the Portland NWS were used to calculate stability. Hourly mixing heights were derived from surface and upper air data collected at Portland NWS station.

Stack parameters used in the modeling for RWS, as well as off-site sources, are listed in Table IV-1. The modeling analyses accounted for the potential of building wake effects on emissions from all modeled stacks that are below their respective formula GEP stack heights.

Table IV-1. Stack Parameters

Facility/ Stack	Stack Base Elevation (m)	Stack Height (m)	GEP Stack Ht (m)	Stack Diameter (m)	Temp (°K)	UTM E (km)	UTM N (km)
RWS Flue A	12.80	66.45	77.72	1.219	422	392.421	4834.499
RWS Flue B	12.80	66.45	77.72	1.219	422	392.423	4834.497
Gorham Energy Unit 1	32.92	50.29	83.82	5.49	447.6	387.975	4838.976
Gorham Energy Unit 2	32.92	50.29	83.82	5.49	447.6	388.012	4839.021
Gorham Energy Unit 3	32.92	50.29	83.82	5.49	447.6	388.048	4839.065
Westbrook Unit 1	30.48	50.29	80.01	5.486	351.0	388.954	4834.744
Westbrook Unit 2	30.48	50.29	80.01	5.486	351.0	388.964	4834.704
FSC	18.6	33.53	39.17	0.4572	438.7	393.044	4832.784
NSC Stack 1	18.6	39.62	63.25	0.9957	394.3	393.219	4832.734
NSC Stack 2	18.6	39.62	63.25	0.9957	394.3	393.222	4832.728
FPL Units 1,2,5	7.9	97.54	128.57	3.02	484.0	406.944	4844.864

FPL Unit 3	7.9	97.54	128.57	3.09	445.0	406.944	4844.864
FPL Unit 4	7.9	129.54	143.76	7.50	489.0	406.934	4844.894
SDW Rcvry Blr 3	13.1	76.2	109.70	1.83	433.0	390.984	4837.744
SDW Blr 21	13.1	109.70	109.70	3.20	485.0	390.904	4837.864
SDW Blrs 17-20	13.1	77.11	109.70	6.50	450.0	390.904	4837.864
SDW Lime Kiln	11.0	45.70	115.10	1.22	342.0	391.054	4837.854
MMC	43.6	38.10	93.92	1.52	450.0	397.084	4837.124
B&M	5.6	45.72	45.72	1.83	450.0	398.844	4836.884
MCC	48.77	18.28	18.28	0.61	450.0	386.064	4842.638

Emission parameters for RWS and off-site sources used in demonstrating compliance with MAAQS are listed in Table IV-2. The analysis was conducted to determine the operating scenario with the greatest impacts. Maximum, 84% and 72% operating scenarios were modeled. The result was that in ISCST3, for 1-hour, 3-hour, 8-hour, and annual averaging periods, the maximum operating scenario yielded the greatest concentrations, and for the 24-hour averaging period the 84% operating scenario yielded the greatest concentrations. While in CI-VM the maximum operating scenario produced the maximum concentrations for all averaging periods. For the purpose of determining NO_2 and PM_{10} impacts, all NO_x and PM emissions were conservatively assumed to convert to NO_2 and PM_{10}, respectively.

Table IV-2. Emission Parameters

Facility/Stack	Operating Scenario	Ave Period	SO_2 (g/s)	PM (g/s)	NO_2 (g/s)	CO (g/s)	Pb (g/s)	Cr (g/s)	Exit Velocity (m/s)
RWS Flue A	Maximum	All	1.391	0.4323	6.202	2.098	0.007925	0.000572	30.06
	84%	All	0.9756	0.3032	4.350	1.471	0.005559	0.000402	21.08
	72%	All	0.9129	0.2837	4.070	1.377	0.005201	0.000376	19.73
RWS Flue B	Maximum	All	1.391	0.4323	6.202	2.098	0.007925	0.000572	30.06
	84%	All	0.9756	0.3032	4.350	1.471	0.005559	0.000402	21.08
	72%	All	0.9129	0.2837	4.070	1.377	0.005201	0.000376	19.73
Gorham Energy Unit 1	Maximum	All			9.45				20.39
Gorham Energy Unit 2	Maximum	All			9.45				20.39
Gorham Energy Unit 3	Maximum	All			9.45				20.39
Westbrook Unit 1	Maximum	All			3.15				21.02
Westbrook Unit 2	Maximum	All			3.15				21.02
FSC	Maximum	All			2.97				68.4
NSC Stack 1	Maximum	All			2.21				14.5
NSC Stack 2	Maximum	All			2.21				14.5
FPL Units 1,2,5	Maximum	All			74.62				36.55
FPL Unit 3	Maximum	All			44.98				28.08
FPL Unit 4	Maximum	All			237.76				22.68
SDW Rcvry Blr 3	Maximum	All			8.80				28.70
SDW Blr 21	Maximum	All			51.40				28.50
SDW Blrs 17-20	Maximum	All			27.90				4.69
SDW Lime Kiln	Maximum	All			2.60				6.13

MMC	Maximum	All			6.94				8.67
B&M	Maximum	All			0.81				2.22
MCC	Maximum	All			1.05				6.50

Key: shaded = Not Modeled

C. Applicant's Modeled Impacts

ISCST3 refined, using all five years of meteorological data, and CI-VM screening modeling were performed for the operating scenarios that resulted in maximum concentrations for RWS. Reported model results are inherently conservative as the highest first high impact was reported rather than the highest second high. It was assumed that 5% of the total chromium emissions are hexavalent chromium which has been accepted as a conservative estimate. The model results for RWS alone are shown in Tables IV-3 and IV-4. ISCST3 refined modeling demonstrated that only NO_2 impacts were significant in simple terrain. CI-VM modeling demonstrated that RWS's impacts were insignificant for NO_2 in complex terrain. Modeled concentrations of SO_2, PM_{10}, and CO were insignificant for all averaging periods in simple and complex terrain and therefore meet MAAQS and increment standards. Modeled concentrations for Pb, Cr, and Cr^6 are below MAAQS. As a result, combined source MAAQS and increment modeling only needs to be performed for NO_2 in simple terrain.

Table IV-3. Maximum ISCST3 Predicted Impacts from Regional Waste Systems Alone

Pollutant	Averaging Period	□Max□ Impact □(μg/m³)	□Receptor□UTM E□(km)	□Receptor□UTM N□(km)	Receptor Elevation (m)	Class II Significance Level (μg/m³)
SO_2	3-hour	8.54	392.044	4833.724	36.58	25
	24-hour	4.91	392.294	4833.724	36.58	5
	Annual	0.231	392.544	4836.724	36.58	1
PM_{10}	24-hour	1.53	392.294	4833.724	36.58	5
	Annual	0.0718	392.544	4836.724	36.58	1
NO_2	Annual	**1.03**	392.544	4836.724	36.58	1
CO	1-hour	27.1	390.044	4838.974	79.25	2000
	8-hour	9.77	392.294	4833.724	36.58	500
Pb	24-hour	0.028	392.294	4833.724	36.58	
Cr	24-hour	0.00202	392.294	4833.724	36.58	
	Annual	0.0000951	392.544	4836.724	36.58	

Cr^6	24-hour	0.000101	392.294	4833.724	36.58	

Key: shaded = not applicable

Table IV-4. Maximum CI-VM Predicted Impacts from Regional Waste Systems Alone

Pollutant	Averaging Period	Max Impact (μg/m³)	Receptor UTM E (km)	Receptor UTM N (km)	Receptor Elevation (m)	Class II Significance Level (μg/m³)
SO_2	3-hour	0.512	393.044	4846.224	76.2	25
	24-hour	0.142	393.044	4846.224	76.2	5
	Annual	0.0455	393.044	4846.224	76.2	1
PM_{10}	24-hour	0.0442	393.044	4846.224	76.2	5
	Annual	0.0142	393.044	4846.224	76.2	1
NO_2	Annual	0.203	393.044	4846.224	76.2	1
CO	1-hour	0.859	393.044	4846.224	76.2	2000
	8-hour	0.601	393.044	4846.224	76.2	500
Pb	24-hour	0.00811	393.044	4846.224	76.2	
Cr	24-hour	0.0000586	393.044	4846.224	76.2	
	Annual	0.0000187	393.044	4846.224	76.2	
Cr^6	24-hour	2.93E-06	393.044	4846.224	76.2	

Key: shaded =not applicable

D. Combined Source Modeling

Because modeled impacts from RWS were greater than significance levels for the NO_2 averaging period in simple terrain, other sources not explicitly included in the modeling analysis must be included by using representative background concentration for the area. The NO_2 background concentration used (see Table IV-5) was based on conservative southern Maine urban background monitoring data.

TABLE IV-5. Background Concentrations (μg/m³)

Pollutant	Averaging Period	Background
NO_2	Annual	28

MEDEP-BAQ identified other sources whose impacts would potentially be significant in RWS's significant impact area. The other sources explicitly included in the modeling were Gorham Energy in Gorham (*Note that Gorham Energy was proposed when this modeling was performed, but the facility was not built*), Westbrook Power in Westbrook, Fairchild Semiconductor and National Semiconductor in South Portland, FPL Energy's (FPL) Wyman Station in Yarmouth, SAPPI/ S.D. Warren (SDW) in Westbrook, Maine Medical Center (MMC) in Portland, Burnham & Morrill (B&M) in Portland, and the Maine Correctional Center (MCC) in Windham.

Table IV-6 summarizes maximum combined source impacts. The predicted impacts are conservative in two ways: first, the reported model results are the highest first high impacts not the highest second high, and second, several sources have since shut down. The predicted impacts are added to conservative background concentrations to demonstrate compliance with MAAQS. NO_2 impacts from RWS plus other sources including background were below their respective MAAQS. Since the impacts meet MAAQS, no further MAAQS modeling for RWS needed to be performed.

Table IV-6. ISCST3 Maximum Combined Source Impacts

Pollutant	Averaging Period	ISCST3 Max (µg/m³)	Receptor UTM-E (km)	Receptor UTM-N (km)	Receptor Elevation (m)	Back-ground (µg/m³)	Max Total Impact (µg/m³)	MAAQS (µg/m³)
NO_2	Annual	17.5	397.244	4834.025	45.72	28	45.5	100

E. Increment

Table IV-7 summarizes maximum combined source increment. The predicted increments are conservative in three ways: first, the reported model results are the highest first high impacts not the highest second high, second, several sources have since shut down, and third, it has been assumed that emissions from the combined sources are totally increment consuming. Since the maximum combined source annual NO_2 increment is below the respective Class II increment, further modeling is unnecessary.

Table IV-7. ISCST3 Maximum Combined Source Increment

Pollutant	Averaging Period	ISCST3 Max (µg/m³)	Receptor UTM-E (km)	Receptor UTM-N (km)	Receptor Elevation (m)	Class II Increment (µg/m³)

NO_2	Annual	17.5	397.244	4834.025	45.72	25

F. Summary

In summary, the applicant has made a demonstration that the applicant's facility in its proposed configuration will not cause or contribute to a violation of MAAQS or Class II increments.

ORDER

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

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

The Department hereby grants the Part 70 License A-283-70-A-I pursuant to Chapter 140 of the Department's regulations and applicable preconstruction permitting requirements of Chapter 115 of the Department's regulations and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to RWS pursuant to the Department's preconstruction permitting requirements in Chapters 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 permit. As such, the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license may be changed only in compliance with the applicable requirements in Chapter 115 for making such changes and in accordance with the applicable requirements in Chapter 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.**

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;

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege;

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable.

(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;

(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.

(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 effect 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.

(c) Permit Shield for Non-Applicable Requirements

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in application dated August 5, 1996.

	SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
a.	Petroleum tank	Chapter 111	Petroleum Liquid Storage Vapor Control	All petroleum tanks at the facility are less than 39,000 gallons in volume
b.	MWC Combustors A and B	Chapter 135	Hexavalent Chromium Particulate Emission Standard	Sources total aggregate chromium input is less than 0.05% by weight of MSW fired
c.	Storage tanks	40 CFR Part 68	Accidental Release Prevention	Chemicals stored on site are stored at less than Threshold Quantities
d.	Combustion Units	Chapter 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds	VOC source is combustion source and exempt per Section 1(C)(4)
e.	Facility	40 CFR Parts 72 and 78	Federal Acid Rain Provisions	Facility is not subject to the provisions and does not choose to 'opt-in' at this time

(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 3 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 Chapter 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.

(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.

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 (Title 38 MRSA §347-C);

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 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;
Enforceable by State-only

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.

(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;
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;

(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.

(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:

(i) 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;

(ii) to demonstrate compliance with the applicable emission standards; or

(iii) 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.

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.

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 standards 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 MRSA § 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.

(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.

(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.

(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;

SPECIAL CONDITIONS

(14) **Municipal Waste Combustors A and B**

The following requirements apply to each MWC individually, unless otherwise noted.

A. Each MWC is licensed to fire municipal solid waste and supplemental wastes including tires; non-veterinary, non-agricultural small dead animals; non-recoverable oily wastes; waste wood and wood chips. Auxiliary fuel use shall be limited to natural gas. [MEDEP Chapter 140, BPT]

B. RWS shall limit natural gas use during a calendar year to a combined annual capacity factor of 10 percent or less, calculated in accordance with 40 CFR Part 60 Subpart Db. [40 CFR Part 60 Subpart Db]

C. RWS shall operate each MWC unit so the following emission limits are not exceeded:

Pollutant	Limit	Units	Ave Time	Origin and Authority
PM	24	mg/dscm @ 7% O_2	-	MEDEP Chapter 140, BPT
PM_{10}	24	mg/dscm @ 7% O_2	-	MEDEP Chapter 140, BPT
SO_2	29[a]	ppmvd @ 7% O_2	24-hr	MEDEP Chapter 121
NOx	180	ppmvd @ 7% O_2	24-hr	MEDEP Chapter 115, BACT
CO	100	ppmvd @ 7% O_2	4-hr	MEDEP Chapter 121
VOC	0.027	lb/MMBtu @ 7% O_2	-	MEDEP Chapter 140, BPT
HCl	29[b]	ppmvd @ 7% O_2	-	MEDEP Chapter 121
Pb (lead)	0.44	Mg/dscm @ 7% O_2	-	MEDEP Chapter 121
Cd (cadmium)	0.04	Mg/dscm @ 7% O_2	-	MEDEP Chapter 121
Hg	0.028[c]	Mg/dscm @ 7% O_2	-	MEDEP Chapter 121
PCDD/ PCDF	60	Ng/dscm @ 7% O_2	-	MEDEP Chapter 121
Ammonia	10	ppmvd @ 7% O_2	-	MEDEP Chapter 140, BPT

a. For SO_2 each MWC shall achieve 29 ppmvd @ 7% O_2 24-hr geometric mean or a minimum control efficiency of 80 percent, whichever is less stringent. RWS shall limit episodes of determining sulfur dioxide compliance based on a minimum control efficiency of 80 percent to ten (10) days per year (12 month rolling total).

b. For HCl (hydrogen chloride) each MWC shall achieve 29 ppmvd @ 7% O_2 or a minimum control efficiency of 95 percent, whichever is less stringent.

c. For Hg each MWC unit shall achieve 0.028 mg/dscm @ 7% O_2 or a minimum control efficiency of 85 percent, whichever is less stringent.

[MEDEP Chapter 121]

D. Compliance with the lb/hr emission limitations shall be demonstrated by stack test when requested by the Department. [MEDEP Chapter 140, BPT]

Emissions from each boiler shall not exceed the following:

Pollutant	lb/hour (each boiler)	Origin and Authority
PM	3.43	MEDEP Chapter 140, BPT
PM_{10}	3.43	MEDEP Chapter 140, BPT
SO_2	11.04	MEDEP Chapter 140, BPT
NO_X	49.22	MEDEP Chapter 140, BPT

For the purpose of this evaluation, operation of the CERMS shall be in accordance with a written protocol prepared by RWS and approved by the Department, and which may be amended only with prior, written approval from the Department.

Within 2 months from the date of completion of the one-year technical evaluation, RWS shall submit to the Department the completed evaluation with a proposal, in the form of an application for a minor modification of this license, to either: (1) retain the CERMS for use in calculating mass emissions, or (2) discontinue the use of the CERMS and calculate mass emissions based on one of the identified alternative methods or some combination of the alternative methods. The Department will act on the application, as appropriate, by issuing an Order modifying this license that specifies methods and protocols for the use of CERMS in calculating mass emissions, or specifies an alternative method or some combination of alternative methods for calculating mass emissions, and specifies how the data generated by this method or methods will be used.

The CERMS shall remain in operation for the period during which RWS prepares its application for a minor modification to the license and for a period not to exceed an additional two months following submittal of the application.

At no time during the study period (maximum of sixteen months including twelve months for technical evaluation, two months for preparation of the minor modification application, and two months for Department review of, and action upon, the application) shall the CERMS data be used for demonstrating compliance with emission limits.

The initial protocol shall be submitted by RWS within 60 days of the issuance of this license. The protocol shall include a proposed date for the start of the one year data collection period.

[Consent Decree and Order of September 3, 1998, State v. RWS, Maine Superior Court Docket No. CV-98-228 (Kennebec County)] **Enforceable by State Only**

O. The following shall be monitored and recorded as specified, for each MWC:

Parameter	Monitor	Record	Origin and Authority
MWC unit load level as steam flow and/or feed water	Continuously	Continuously	MEDEP Chapter 121
Electrostatic	Continuously	Continuously	MEDEP Chapter 121

Precipitator inlet temperature			
Carbon injection feed rate (using carbon injection system operating parameters that are the primary indicator(s) of carbon mass feed rate)	Hourly	Hourly	MEDEP Chapter 121
Natural gas fuel flow	Daily	Daily	MEDEP Chapter 140, BPT 40 CFR Part 60, Subpart Db, 60.49b(d)

* Note: "Continuously" is defined as no less than 2 points in a one hour period.

P. RWS shall monitor and record the total volume of natural gas used as supplemental fuel in its waste combustors using the daily readings. RWS shall calculate the annual capacity factor of natural gas combustion in accordance with 40 CFR Part 60 Subpart Db.

Q. Each parameter monitor listed above in Condition 14(P) must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the source-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 that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department 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.

If RWS develops and implements a Quality Assurance/Quality Control Plan for the parameter monitor(s) that is determined acceptable by the Department, a lower percentage of source operating time, as specified in the QA/QC plan, may be substituted for the 98% uptime requirement.

[MEDEP Chapter 140, BPT] **Enforceable by State Only**

(15) **Operating Practices**

Each municipal waste combustor shall meet the following operating practice standards:

A. Over a 4-hr period, each MWC operating load level shall not exceed 110% of the maximum demonstrated MWC unit load level measured as steam flow or feed water flow demonstrated during the most recent PCDD/PCDF testing, except for the two weeks prior to and during PCDD/PCDF testing, or if waived by the Bureau of Air Quality for purposes of evaluating system performance, testing new technology or control technologies, or diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. Combustor load means the highest 4-hr arithmetic average combustor unit load achieved during four consecutive hours during the most recent PCDD/PCDF performance test demonstrating compliance with the applicable limit for PCDD/PCDF. [MEDEP Chapter 121]

B. The four-hour block average electrostatic precipitator inlet temperature shall not exceed 17°C of the maximum demonstrated particulate matter control device inlet temperature as determined during PCDD/PCDF testing, except for the two weeks prior to and during PCDD/PCDF testing, or if waived in writing by the Department for purposes of evaluating system performance, testing new technology or control technologies, or diagnostic testing, or related activities for the purpose of improving facility performance of advancing the state-of-the-art for controlling facility emissions. [MEDEP Chapter 121]

C. During operation of MWCs A and B, the carbon injection system operating parameters that are the primary indicator(s) of carbon mass feed rate must equal or exceed the level(s) documented during the most recent performance tests for mercury and dioxin/furans. [MEDEP Chapter 121]

D. RWS is licensed to fire waste types 0, 1, 2, 3, and 6, as defined in Chapter 100 of the Department's Regulations. [MEDEP Chapter 140, BPT] **Enforceable by State Only**

E. The following are unacceptable wastes and shall not be combusted in the MWCs: waste classified as RCRA hazardous waste, low level radioactive, and red bag medical wastes. [MEDEP Chapter 140, BPT]

F. RWS shall not fire MSW in a MWC train when the electrostatic precipitator, dry scrubber, or the SNCR system fails. [MEDEP Chapter 140, BPT] **Enforceable by State Only**

G. During periods when neither boiler is in operation, the tipping floor and bunker areas shall be closed so as to prevent odor emissions. Alternatively, the licensee may vent these areas via an induced draft fan to the stack. [MEDEP Chapter 140, BPT] **Enforceable by State Only**

H. During times of prolonged facility outage or maintenance RWS will follow procedures for waste bypass in order to prevent potential environmental impacts of waste storage. These procedures are described in the 'Waste Receiving Procedure in Section 3 of RWS' Operations Manual. There shall be no outside storage of waste. [MEDEP Chapter 140, BPT] **Enforceable by State Only**

I. RWS is licensed to dispose of non-veterinary, non-agricultural small dead animal remains in MWCs A and B.
   1. Small dead animal remains must be delivered to RWS:
      a. Separated from other refuse;
      b. Frozen and double-bagged; and
      c. Accompanied by designated member or associate member community personnel.
   2. The scale house attendant shall alert RWS personnel of the delivery. RWS personnel shall accompany member or associate member community personnel, who shall carry the frozen, bagged waste into the elevator directly to the sixth floor, where community personnel shall deposit the bag directly into MWCs A or B in the presence of RWS personnel.
   3. Non-veterinary, non-agricultural dead animal waste remains shall not be deposited onto the tipping or other floors, and at no time shall RWS personnel handle the remains.
   4. All non-veterinary, non-agricultural dead animal remains shall be disposed of in accordance with RWS's Operations Manual.
   5. RWS shall maintain a log documenting the time at which the non-veterinary, non-agricultural dead animal remains are introduced into either MWC A or B and the estimated quantity of non-veterinary, non-agricultural dead animal remains disposed of in either boiler A or B.

   [MEDEP Chapter 140, BPT]
   Enforceable by State Only

(16) **Emergency Diesel Generator**

A. Operation of the emergency generator shall be limited to 500 hours per year, calculated on a 12 month rolling total.

B. To document compliance RWS shall maintain hour meters on the emergency generator and shall keep a written log of all operating hours.

C. Diesel fuel utilized shall be limited to a sulfur content of 0.05% by weight, demonstrated by purchase records from the supplier.

D. Emissions from the emergency generator shall not exceed the following:

Pollutant	Lb/MMBtu	Lb/hr
PM	0.12*	0.63
PM_{10}	---	0.63
SO_2	---	0.30
NO_X	---	23
CO	---	5.0
VOC	---	1.8

* PM lb/MMBtu limit based on MEDEP Chapter 103

E. Visible emissions from the emergency generator shall not exceed 30% opacity on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period. [MEDEP Chapter 140, BPT]

(17) **Ash Loadout Building**

A. RWS shall not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points and building or enclosures of ash conveying systems and storage areas) in excess of 5 percent of the observation period (i.e., 9 minutes in any 3-hour period). [MEDEP Chapter 121]

B. Visible emissions testing shall be conducted annually in accordance with EPA Reference Method 22. [MEDEP Chapter 121]

C. Fugitive ash visible emission limitations do not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; fugitive ash visible emissions limitations do cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems. [MEDEP Chapter 121]

D. Visible emissions requirements for fugitive ash emissions do not apply during maintenance and repair of ash conveying systems. [MEDEP Chapter 121]

E. Ash from each MWC shall be disposed of in accordance with the regulations of the Bureau of Remediation and Waste Management (BRWM). Ash shall be sufficiently conditioned with water or transported in sealed containers so as to prevent fugitive emissions. [MEDEP Chapter 140, BPT] **Enforceable by State Only**

F. All ash and non-combustible materials shall be stored in covered containers or in a leak tight enclosure. [MEDEP Chapter 140, BPT] **Enforceable by State Only**

(18) **Lime Silo Vent**

A. Visible emissions from the lime silo baghouse shall not exceed 10% opacity, based on a 6 minute block average basis.

B. RWS shall maintain and operate a baghouse to control emissions during lime silo filing operations. RWS shall not conduct filling operations without the proper use of the baghouse. Maintaining the baghouse includes keeping a maintenance log documenting all lime silo filter malfunctions, maintenance work, and repairs.

[MEDEP Chapter 140, BPT]

(19) **Operator Training and Certification**

A. Each chief facility operator and shift supervisor shall have completed full certification QRO-1-1994 through the ASME or State.

B. At least one fully certified chief facility operator, fully certified shift supervisor, or a provisionally certified chief facility operator or provisionally certified shift supervisor who is scheduled to take the full certification exam, must be at the facility during operations. If one of the above persons leave the facility during their operating shift, a provisionally certified control room operator who is on-site at the facility may fulfill the above requirements.

C. The facility must have a site-specific operation manual. The manual shall be reviewed and updated as necessary annually, and all persons whose responsibilities affect the operation of the facility must be familiar with this document. The manual shall contain the following:

1. A summary of the applicable standards in the facility's air emission license;
2. A description of basic combustion theory applicable to the municipal waste combustor unit:
3. Procedures for receiving, handling, and feeding municipal solid waste;
4. Municipal waste combustor unit startup, shutdown, and malfunction procedures;
5. Procedures for maintaining proper combustion air supply levels;
6. Procedures for operating the municipal waste combustor unit within the standards established in the air emission license;
7. Procedures for responding to periodic upset or off-specification conditions;
8. Procedures for minimizing particulate matter carryover;
9. Procedures for handling ash;
10. Procedures for monitoring municipal waste combustor unit emissions; and

11. Reporting and recordkeeping procedures.

D. The facility shall establish a training program to review the operating manual with each person who has responsibilities affecting the operation of the MWC units including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Initial training shall be conducted prior to the day the person assumes responsibilities affecting MWC unit operation. Training is required annually following the initial training.

E. The operating manual shall be kept in a readily accessible location for all persons required to undergo training. The operating manual and records of training shall be available for inspection.

[MEDEP Chapter 121]

(20) **Municipal Waste Combustors A and B Compliance and Performance Testing**

A. Compliance and performance testing standards apply at all times except for ppmvd emission limits for SO_2, NOx, and CO during warm-up, startup, and shutdown. [MEDEP Chapter 121]

1. Startup (for both cold and warm startup) begins when MWC A and/or B begins the continuous burning of municipal solid waste (MSW) and does not include any warm-up period when the boiler is combusting natural gas. Boiler startup shall be limited to 3 hours per occurrence. [MEDEP Chapter 121]
2. Shutdown
   a. Emergency shutdown of a MWC unit begins when MSW is no longer fed into the feed chute for that particular boiler and combustion flow to the primary and secondary air fans of that boiler are shut off. Emergency shutdown, for the purpose of compliance with the CO emission limits, shall be limited to 15 hours per occurrence for events in which there is a loss of boiler water control or combustion air control. For all other emergency shutdown events, boiler shutdown shall be limited to 3 hours per occurrence. [MEDEP Chapter 140, 40 CFR Part 60.58b(a)(1)]
   b. Routine shutdown of a MWC unit begins when MSW is no longer fed into the feed chute for that particular boiler and combustion flow to the primary and secondary air fans of that boiler continues until all MSW is burned and has been discharged to the ash system. During a routine shutdown, auxiliary fuel (natural gas) firing is used to augment MSW combustion until the MSW is completely combusted. Routine boiler shutdown shall be limited to 3 hours per occurrence. [MEDEP Chapter 140]

3. Continuous burning is the continuous, semicontinuous, or batch feed of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. [MEDEP Chapter 121]
4. Operations during startup, shutdown, and malfunction periods will occur in accordance with the startup, shutdown, and malfunction plan contained in the source operating manual. [MEDEP Chapter 121]
5. MWC warm-up shall be defined as the period before startup commences, when only fossil fuel (natural gas) is being fired in MWC A or B. [MEDEP Chapter 121]
6. The lb/hr emission limits for SO_2, NOx, and CO apply at all times including warm-up, startup, and shutdown periods. [MEDEP Chapter 140, BPT]
7. The stack O_2 levels during MWC warm-up and startup that exceed 14.0% may be replaced with a value of 14.0. RWS is licensed to recalculate the hourly ppmdv averages for SO_2, NO_X and CO if the observed stack test oxygen is greater than 14.0% during warm-up and startup and to use the recalculated number for compliance purposes. Subsequent to startup, the use of actual O_2 readings will be resumed. Emission concentrations shall be corrected to 7% O_2 (dry basis). [MEDEP Chapter 140]

B. The CEMS and COMS required by this license shall be the primary means of demonstrating compliance with applicable emission standards set by this Order, statute, state or federal regulation. RWS shall comply with the following: [MEDEP Chapter 140, BPT]

1. RWS shall calibrate, maintain, and operate a CEMS and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxide emissions are monitored. The monitoring system shall comply with Chapter 121 and Chapter 117 of the Department regulations and 40 CFR Part 60 Section 60.58b. [MEDEP Chapter 121 and 117]

2. All CEMS and COMS shall meet the sampling and performance criteria specified in 40 CFR Part 51 Appendix P, and shall be operated in accordance with 40 CFR Part 60 Appendix F, 40 CFR Part 60 Section 60.58b, and Chapter 117 of the Department's regulations.
   a. Conduct Relative Accuracy Testing (RATA) and/or Performance Audits in accordance with Chapter 117 of the Department's regulations.
   b. Develop and maintain an updated quality assurance plan for all CEMS and COMS in accordance with 40 CFR Part 60 Appendix F and Chapter 117 of the Department's regulations.

[MEDEP Chapter 117]

3. RWS shall conduct a performance test for opacity on an annual basis (no later than 12 calendar months following the previous performance test) using EPA Reference Method 9, except as provided under 40 CFR Part 60, Subpart A (Section 60.11(e)). If electing to use the methods in Section 60.11(e), RWS shall use COM system opacity data collected during the annual performance test for particulate matter to demonstrate compliance with the opacity standards, and therefore Method 9 observations are not required. [MEDEP Chapter 121]

C. The procedures and test methods used to determine compliance with the emission limit for **sulfur dioxide** shall be in accordance with Chapter 117 and 121 of the Department's regulations and 40 CFR Part 60 Section 60.58b.

Compliance with the sulfur dioxide ppmdv emission limit (concentration or percent reduction) shall be determined by using a continuous emission monitoring system to measure sulfur dioxide and calculating either a 24-hour daily geometric average emission concentration (based on outlet concentration data) or a 24-hour daily geometric average percent reduction (based on inlet and outlet concentration data). The 24-hour daily geometric average shall be calculated based on the hourly arithmetic average emission concentrations.

[MEDEP Chapter 121 and 117]

D. The procedures and test methods used to determine compliance with the ppmdv emission limit for **nitrogen oxide** shall be in accordance with Chapter 117 and 121 of the Department's regulations and 40 CFR Part 60 Section 60.58b.

Compliance with the nitrogen oxide ppmdv emission limit shall be determined by using a continuous emission monitoring system for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration based on outlet concentration data. The 24-hour daily arithmetic average shall be calculated based on the hourly emission concentrations.

[MEDEP Chapter 121 and 117]

E. The procedures and test methods used to determine compliance with the ppmdv emission limit for **carbon monoxide** shall be in accordance with Chapter 117 and 121 of the Department's regulations and 40 CFR Part 60 Section 60.58b.

Compliance with the carbon monoxide ppmdv emission limit shall be determined by using a continuous emission monitoring system for measuring carbon monoxide and calculating the 4-hour block arithmetic average emission concentrations based on outlet concentration data. The 4-hour block arithmetic average shall be calculated based on the hourly emission concentrations.

[MEDEP Chapter 121 and 117]

F. The procedures used to determine compliance with the operating requirements for **load level** and particulate matter control **device inlet temperature** shall be in accordance with Chapter 121 of the Department's regulations and 40 CFR Part 60 Section 60.58b. [MEDEP Chapter 121 and 117]

1. RWS shall calibrate, maintain, and operate a steam flow meter and/or a feedwater flow meter; measure steam or feedwater flow in pounds per hour on a continuous basis; and record the output of the monitor. Steam or feedwater flow shall be calculated in 4-hour arithmetic averages. Continuous is defined as no less than 2 points in a one hour period. [MEDEP Chapter 121]
2. All signal conversion elements associated with steam or feedwater measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year. [MEDEP Chapter 121]
3. RWS shall install, calibrate, maintain, and operate (as specified by the original equipment manufacturer) a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages. Continuous is defined as no less than 2 points in a one hour period. [MEDEP Chapter 121]
4. The maximum demonstrated municipal waste combustor unit load shall be determined during each subsequent annual performance test during which compliance with the dioxin/furan emission limit is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. [MEDEP Chapter 121]
5. For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during each subsequent annual performance test during which compliance with the dioxin/furan emission limit is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which

compliance with the dioxin/furan limit was achieved. [MEDEP Chapter 121]

G. The following performance test shall be used for determining compliance with the **fugitive ash** emission limit on the ash loadout building:

1. EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks. [MEDEP Chapter 121]
2. The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with the fugitive ash limit. [MEDEP Chapter 121]
3. RWS shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test). [MEDEP Chapter 121]

H. **Stack Testing**

All stack testing programs shall comply with all of the requirements of the MEDEP Compliance Test Protocol and with 40 CFR Part 60, as appropriate, or other methods approved by the MEDEP and EPA to test. [MEDEP Chapter 140, BPT]

1. The procedures and test methods used to determine compliance with the emission limits for **particulate matter, cadmium, lead, mercury, dioxin/furan,** and **hydrogen chloride** shall be in accordance with Chapter 121 of the Department's regulations and 40 CFR Part 60 Section 60.58b.

2. RWS shall conduct a performance test for compliance with the emission limits for **particulate matter, cadmium, lead, mercury, dioxin/furan,** and **hydrogen chloride** on an annual basis (no later than 12 calendar months following the previous performance test). [MEDEP Chapter 121]

3. When determining percent reductions for mercury and hydrogen chloride emissions, both inlet and outlet concentrations shall be measured during stack testing. [MEDEP Chapter 121]

4. Stack test results shall be submitted to the Department in accordance with Chapter 121 of the Department's regulations.

5. During performance tests for mercury and dioxin/furans, an average carbon mass feed rate shall be determined in pounds per hour based on carbon injection system operating parameters (screw feeder speed, hopper

volume, or hopper refill frequency, etc). The average carbon mass feed rate recorded per hour for each MWC train shall be submitted in the performance test report for mercury and dioxin/furan control. [MEDEP Chapter 121]

(21) **Reporting and Recordkeeping Requirements**

RWS shall maintain records of the following information, for each affected facility for a period of at least 6 years: [MEDEP Chapter 121]

A. The calendar date of each record.

B. The emission concentrations and parameters measured using continuous monitoring systems as specified under the following paragraphs.

1. The measurements specified in the following paragraphs shall be recorded and be available for submittal to the Department or review on-site by an inspector.
   a. All 6-minute average opacity levels.
   b. All 1-hour average sulfur dioxide ppmdv emission concentrations.
   c. All 1-hour average nitrogen oxides ppmdv emission concentrations.
   d. All 1-hour average carbon monoxide ppmdv emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures.

2. The average concentrations and percent reductions, as applicable, specified in the following paragraphs shall be computed and recorded, and shall be available for submittal to the Department or review on-site by an inspector.
   a. All 24-hour daily geometric average sulfur dioxide ppmdv emission concentrations or all 24-hour daily geometric average percent reduction in sulfur dioxide emissions.
   b. All 24-hour daily arithmetic average nitrogen oxides ppmdv emission concentrations.
   c. All 4-hour block arithmetic average carbon monoxide ppmdv emission concentrations.
   d. All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperature.

C. Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded, or the opacity levels recorded are above the applicable limits, with reasons for such exceedances and a description of the corrective action taken.

D. Identification of the calendar dates for which the minimum number of hours of any of the data specified in the following paragraphs have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken:

1. Sulfur dioxide emissions ppmdv data;
2. Nitrogen oxides emissions ppmdv data;
3. Carbon monoxide emissions ppmdv data;
4. Municipal waste combustor unit load data; and
5. Particulate matter control device temperature data.

E. Identification of each occurrence of sulfur dioxide ppmdv emissions data, nitrogen oxides ppmdv emission data, or carbon monoxide ppmdv emission data, operational data (including, but not limited to unit load, CO emissions, and particulate matter control device temperature) that have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

F. The results of daily drift test and quarterly accuracy determinations for sulfur dioxide ppmdv, nitrogen dioxides ppmdv, and carbon monoxide ppmdv continuous emission monitoring systems, as required under 40 CFR Part 60, Appendix F, Procedure 1.

G. The test reports documenting the results of all annual performance tests listed in the following paragraphs shall be recorded along with supporting calculations.
1. The results of all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
2. For all subsequent dioxin/furan performance tests recorded, records shall include the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
3. The results of all performance tests conducted a minimum of every three years to determine emissions of arsenic, nickel, chromium, and beryllium. **Enforceable by State Only**

H. Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally and/or fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program including the dates of initial and renewal certifications and documentation of current certification.

I. Records showing the names of persons who have completed a review of the operating manual including the date of the initial review and subsequent annual reviews.

J. For the **activated carbon system** used for mercury and dioxin/furan control, the following records shall be maintained:
   1. The average carbon mass feed rate (lb/hr) determined during the mercury and dioxin/furan performance tests, with supporting calculations.
   2. The average carbon mass feed rate (lb/hr) determined for each hour of operation, with supporting calculations.
   3. The total carbon usage for each calendar quarter, with supporting calculations. Quarterly usage determinations shall be based on the weight of carbon delivered to the plant and based on parameters used to determine the average carbon mass feed rate in lb/hr for each hour of MWC operation for each MWC.
   4. Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
   5. Identification of the calendar dates when the average carbon mass feed rates recorded were less than either of the hourly carbon feed rates determined during performance tests for mercury or dioxin/furan emissions and recorded, with reasons for such feed rates and a description of corrective action taken.
   6. Identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded are below the level(s) determined during the performance tests, with reasons for such occurrences and a description of corrective action taken.

K. For all the equipment **parameter monitoring** and recordkeeping required by this license, including
   - Carbon injection feed rate,
   - Steam flow and/or feed water,
   - ESP temperature inlet, and
   - Natural gas fuel flow.

   records shall include:
   1. Documentation which shows monitor operational status during all source operating time, including specifics for calibration and audits; and
   2. A complete data set of all monitored parameters as specified in this license. All parameter records shall be made available to the Department upon request.

   [MEDEP Chapter 140, BPT]

L. For all the equipment **periodic monitoring** and recordkeeping required by this license, including
   - Weekly visible inspections of the multicyclone and ESP, and
   - ESP T/R voltage and current meter reading once per day.

records shall include a complete data set of all periodic monitors as specified in this license. All periodic records shall be made available to the Department upon request.
[MEDEP Chapter 140, BPT]

M. For all **CEMS and COMS**, the records shall include:
1. Documentation that all CEMS and COMS are continuously accurate, reliable and operated in accordance with Chapter 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F; [MEDEP Chapter 117]
2. 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;
3. Upon written request from the Department, a report of other data indicative of compliance with the applicable emission standard 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.
[MEDEP Chapter 117]

N. Monthly records of natural gas use based on meter readings provided by the natural gas supplier. [MEDEP Chapter 140, BPT]

O. Records of hours of use of the emergency diesel generator, as well as records showing the percent (%) sulfur content of the fuel by weight. [MEDEP Chapter 140, BPT]

P. For the **pollution control equipment**:
A log detailing all routine and non-routine maintenance on each multicyclone, electrostatic precipitator, spray dryer, carbon injection system, and SNCR equipment. RWS shall keep a log documenting the location, date, and nature of all pollution control equipment failures. [MEDEP Chapter 140, BPT]

Q. All records shall be maintained on-site in either paper copy or computer readable format, unless an alternative format is approved by the Department. [MEDEP Chapter 121]

(22) **Quarterly Reporting**
The licensee shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following, for the control equipment, parameter monitors, Continuous Emission Monitoring

Systems (CEMS) or Continuous Opacity Monitoring Systems (COMS) required by this license. [MEDEP Chapter 117]

1. All control equipment downtimes and malfunctions and information in Condition 21(P);
2. All CEMS or COMS downtimes and malfunctions and information in Condition 21(M)(3)
3. All parameter monitor downtimes and malfunctions and information identified in Conditions 21(D), (J), and (K);
4. All excess events of emission and operational limitations identified in Condition 21(C). The following information shall be reported for each excess event;
   a. Standard exceeded;
   b. Date, time, and duration of excess event;
   c. Maximum and average values of the excess event, reported in the units of the applicable standard, and copies of pertinent data when requested;
   d. A description of what caused the excess event;
   e. The strategy employed to minimize the excess event; and
   f. The strategy employed to prevent reoccurrence;
5. Summary of test results received during the reporting period, per condition (21)G or as requested;
6. All information required by Condition (21)(E); or
7. A report certifying there were no excess emissions, if that is the case.

(23) **Semiannual Reporting**

RWS shall submit semiannual reports every six months to the Bureau of Air Quality. The semiannual reports are due with every other quarterly report, and the initial semiannual report is due July 31, 2003 [MEDEP Chapter 121 and 140]

A. Each semiannual report shall include a summary of the periodic monitoring required by this license.

B. 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.

C. A summary of data collected for all pollutants and parameters regulated under this license, which includes the following information:
   1. A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels summarized from results received from performance tests that occurred in the reporting period.

2. A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded.
3. List of the highest opacity level measured, based on the data recorded.
4. The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device inlet temperature data were not obtained based on the data recorded.
5. The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded.
6. A record of supplemental fuel (natural gas) use by month. The semi-annual report due each January and July shall also include the results of the calculations to demonstrate compliance with Condition 14(B), regarding the 10% annual capacity factor.

D. The summary of data reported shall also provide the types of data listed in the above condition, (23)(C), for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2-year period.

E. The summary of data including the information specified in Condition (23)(C) and (23)(D) shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under the special conditions of this license.

F. The semiannual report shall include the following information for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified in this license.
   1. The semiannual report shall include information recorded under Special Condition (21)(C) for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device temperature, and opacity.
   2. For each date recorded as required by Special Condition (21)(C) of this license and reported, the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, recorded under Special Condition (21)(B).
   3. If the test reports recorded under Special Condition (21)(G) document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of

the test report documenting the emission levels and the corrective action taken.

G. If RWS elects to reduce the dioxin/furan performance testing frequency, the semiannual report shall include notification of intent to begin the reduced dioxin/furan performance testing schedule, as provided in Chapter 121 Section 5(D)(3) of the Department's Regulations, during the following calendar year.

H. The semiannual report shall include the information recorded for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate. For each operating date reported, the semiannual report shall include the carbon feed rate data recorded.

I. All reports shall be submitted as paper copy, postmarked on or before the required submittal dates, and maintained on-site as a paper copy, or in a computer readable format, for a period of 6 years.

(24) **Annual Compliance Certification**

RWS shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The initial annual compliance certification is due January 31, 2004. [MEDEP Chapter 140]

(25) **Emission Statements**

A. Annual Emission Statement

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

or

2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by September 1, or 60 days from the date the emission statement forms are mailed from the Department, whichever is earlier.

B. Toxic Air Pollutants Emission Statement
In accordance with MEDEP Chapter 137, the licensee shall report, no later than September 1 or 60 days from the date the emission statement forms are mailed from the Department, whichever is earlier, every two years (2002, 2004, etc.) or in a timeframe designated to the Department, the information necessary to accurately update the State's toxic air pollutants emission inventory by means of a written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

(26) **Solvent Degreaser**

The solvent degreaser is subject to the operational and record keeping requirements of MEDEP Chapter 130 which include, but are not limited to, the following:

A. RWS shall keep records of the amount of solvent added to the solvent degreaser.
B. RWS shall attach a permanent conspicuous label to the unit summarizing the following operational standards of Chapter 130:
   1. Equip each cold cleaning degreaser with a cover that is easily operated with one hand if:
      a. the solvent vapor pressure is greater than 15 millimeters of mercury measured at 100 °F by ASTM D323-89; or,
      b. the solvent is agitated; or,
      c. the solvent is heated.
   2. Close the covers on all solvent degreasing tanks when the tanks are not in use;
   3. Drain the cleaned parts for at least fifteen (15) seconds or until dripping stops;

4. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower-type spray) at a pressure that does not exceed ten (10) pounds per square inch gauge pressure (psig);
5. Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
6. Minimize drafts to less than 40 meters/minute;
7. Refrain from operating the cold cleaning degreaser upon the occurrence of any visible solvent leak until such leak is repaired; and
8. Do not use any halogenated solvents in the degreasing tanks.

[MEDEP Chapter 130]

(27) The licensee is subject to the following State regulations.

Origin and Authority	*Requirement Summary*
Chapter 102	Open Burning
Chapter 109	Emergency Episode Regulations
Chapter 110	Ambient Air Quality Standard
Chapter 116	Prohibited Dispersion Techniques
38 M.R.S.A. Section 3 §585-B, sub-§5	Reduce Mercury Use and Emissions **Enforceable by State Only**

Enforceable by State Only

(28) **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. An example of such units include refrigerators and any size air conditioner that contain CFCs.
[40 CFR, Part 82, Subpart F]

(29) **Certification by a Responsible Official**
All reports (including quarterly reports, semiannual reports, and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official. [MEDEP Chapter 140]

(30) RWS shall pay the annual air emission license fee within 30 days of February 28 of each year. Pursuant to Title 38-353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under section 341-D, subsection 3.

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

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application August 28, 1996
Date of application acceptance August 28, 1996

Date filed with Board of Environmental Protection _____

This order prepared by Kathleen E. Molokie, Bureau of Air Quality.