



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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**Mid-Maine Waste Action Corporation
Androscoggin County
Auburn, Maine
A-378-70-C-A**

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1**

FINDINGS OF FACT

After review of the Part 70 License amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Mid-Maine Waste Action Corporation (MMWAC)
LICENSE TYPE	Part 70 Administrative Revision
NAICS CODES	562213, 562920
NATURE OF BUSINESS	Refuse Systems: Municipal Waste Combustion and Materials Recovery
FACILITY LOCATION	110 Goldthwaite Road, Auburn, Maine

The Mid-Maine Waste Action Corporation (MMWAC) was created by twelve area municipalities in 1986 to process and dispose of residential and commercial waste. The waste-to-energy process converts solid waste into an ash residue, which minimizes landfill reliance in the State and produces electricity from the fuel value of the trash. MMWAC produces electricity from the waste that is incinerated and sells excess to the local power grid.

MMWAC has the potential to emit more than 100 tons per year (TPY) of nitrogen oxides (NO_x); therefore, the source is a major source for this criteria pollutant. MMWAC has the potential to emit more than 10 TPY of a single hazardous air pollutant (HAP) and more than 25 TPY of combined HAP; therefore, the source is a major source for HAP.

B. Application Classification

A Part 70 Administrative Revision is for license changes that correct typographical errors; change the name, address, or phone number of any person or facility identified in the Part 70 license or a similar administrative change at the Part 70 source; or result in more frequent monitoring, reporting, recordkeeping or testing requirements. As defined in 06-096 Code of Maine Rules (CMR) 100, a Part 70 Administrative Revision may also be used to incorporate the terms and conditions of a major New Source Review air license issued pursuant to 06-096 CMR 115 into a Part 70 license.

The requested revision to correct typographical errors and to add clarifying language to the Part 70 license meets the definition of a Part 70 Administrative Revision and has been processed under *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

II. TYPOGRAPHICAL CORRECTIONS and ADDED CLARIFYING LANGUAGE

The following corrections and/or clarifications are being made to MMWAC's Part 70 operating license, Air Emission License A-378-70-B-R/A which was issued August 12, 2013. In this air emission license amendment, the facility's Part 70 operating license will be referred to as "the Part 70 license".

A. Emergency Diesel Generator Output Capacity Correction

The table entitled "Diesel Generators and Engines" on page 2 of the Part 70 license incorrectly identifies the output capacity of the Emergency Diesel Generator. The correct value is 465 hp (not 456 hp).

B. MSW Combustor Units #1 and #2 SO₂ Averaging Time Correction

The table identifying emission limits and streamlining for the facility's MSW Combustor Units #1 and #2, on pages 12-14 of the Part 70 license incorrectly identifies the averaging time for the licensed emission limit for SO₂. The phrase "based on 1-hour, 24-hour daily geometric mean" from the *Licensed Emission Limits for EACH Unit* column is hereby replaced with "based on 24-hour daily geometric mean."

This same correction is made in the corresponding Specific Condition (14) (G) of the Part 70 license.

C. MSW Combustor Units #1 and #2 CO Averaging Time Correction

The CO ppm emission limit as specified in the table on pages 12-14 of the Part 70 license should be based on a 24-hour block average. Table 5 of 40 CFR Part 60, Subpart BBBB identifies various CO limits and averaging times based on the type of combustor technology. MMWAC utilizes mass burn Laurent Bouillet Oscillating Combustors, the only known units utilizing such technology in North America and which do not fit into any of the categories listed in the table. This technology has a number of significant differences when compared to the “Mass Burn Rotary Refractory Units” category. The Part 70 license issued August 12, 2013, includes CO ppm emission limits on a 4-hour block average, arithmetic mean. Consistent with the facility’s initial Part 70 license, these units will be limited to a CO emissions concentration limit of 100 ppmdv, on a 24-hour block average basis.

This same correction is made in the corresponding Specific Condition (14) (G) of the Part 70 license.

D. Required Induced Draft Fans Clarification

Specific Condition (20) (D)(1) of the Part 70 license states, “During periods that one or both of the Combustors are not in operation, the induced draft fans will continue to operate....” However, during maintenance outages when the units are shut down, the induced draft fans may not always run, as may be required to facilitate specific maintenance activities. This is a practical necessity during periods of maintenance, and the Part 70 license is amended via this Administrative Revision to include this clarification.

E. Ash Handling System Compliance Testing Correction

Part A of Specific Condition (23) of the Part 70 license clearly specifies the compliance method required for visible emissions from the Ash Handling System, to be conducted “no sooner than 12 months after the most recent successful test and no later than 30 months after the most recent test, such that two tests are completed during each five-year period.”

Part C of Specific Condition (23) states performance test requirements contradictory to Part A, requiring visible emissions performance testing “on an annual basis, no more than 12 calendar months following the previous performance test.”

To rectify this contradiction, Part C is removed from the Part 70 license via this Administrative Revision.

F. Fuel Oil Sulfur Content Compliance Dates Correction

Because the cited statute has been amended, the specified January 1, 2016 fuel oil sulfur content compliance date shall be replaced with July 1, 2016. This date shall replace the date specified in Section II (R)(3)(d) on page 34 of the Part 70 license and in the corresponding Specific Condition (25).

G. Facility Annual Emissions

Total licensed annual emissions for the facility will not change as a result of this Administrative Revision Part 70 License Amendment.

III. AMBIENT AIR QUALITY ANALYSIS

MMWAC previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-378-72-B-A, issued on July 27, 1990). An additional ambient air quality analysis is not required for this Administrative Revision Amendment to the Part 70 License.

ORDER

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

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

The Department hereby grants the Part 70 License Amendment A-378-70-C-A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the conditions found in Air Emission License A-378-70-B-R/A and the following conditions.

Severability. The invalidity or unenforceability of any provision of this License Administrative Revision 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

This condition shall replace Part G of Specific Condition (14) of Air Emission License A-378-70-B-R/A (August 12, 2013).

(14) MSW Combustor Unit#1 and Unit #2 Limits

G. Emissions from each MSW Combustor unit shall not exceed the following:

Pollutant	Emission Limits for EACH Unit	Origin and Authority
PM	22.88 mg/dscm (equal to 0.010 gr/dscf) @ 7%O ₂ ; 1-hour basis, 3-run average	A-378-72-B-A (July 27, 1990), BACT
	1.83 lb/hr, 1-hour basis	
PM ₁₀	1.83 lb/hr, 1-hour basis	
SO ₂	30 ppmvd @ 7% O ₂ -or- 80% reduction by weight or volume @ 7% O ₂ , whichever is less stringent, 24- hr daily geometric mean	06-096 CMR 121 (7)(A)(4) and A-378-72-B-A (July 27, 1990), BACT
	6.97 lb/hr , 1-hour basis	A-378-70-A-I (July 1, 2002), BACT/BPT
NO _x	315 ppmvd @7% O ₂ , (summer) -and- 330 ppmvd @ 7% O ₂ , (winter) 24-hr daily block arithmetic average basis	A-378-72-E-A (October 16, 1996) and 06-096 CMR 138, NO _x RACT
	52.62 lb/hr, 1-hour basis (summer)	A-378-70-A-I (July 1, 2002), BACT/BPT
	54.87 lb/hr, 1-hour basis (winter)	
CO	100 ppmvd; 24-hr block average, arithmetic mean	40 CFR Part 60, Subpart BBBB
	10.17 lb/hr, 1-hour basis	
VOC	20 ppmvd @ 7% O ₂	A-378-72-B-A (July 27, 1990), BACT
	1.16 lb/hr, 1-hour basis	
Visible Emissions	10% opacity, 6-minute block average	06-096 CMR 121 (7)(A)(2) and A-378-72-B-A (July 27, 1990), BACT
Hydrogen Chloride (HCl)	25 ppmvd @ 7% O ₂ or a minimum control efficiency of 90% reduction by weight, whichever is less stringent (Stack Test Method 26)	A-378-72-B-A (July 27, 1990), BACT
Dioxins/Furans (PCDD/PCDF, total mass basis)	125.0 ng/dscm @ 7% O ₂ ; 3-run average, (minimum run duration is 4 hours)	40 CFR Part60, Subpart BBBB
Cadmium (Cd)	0.03 mg/dscm @ 7% O ₂ , 3-run average	06-096 CMR 140, BPT

<u>Pollutant</u>	<u>Emission Limits for EACH Unit</u>	<u>Origin and Authority</u>
Mercury (Hg)	0.028 mg/dscm @ 7% O ₂ or a minimum control efficiency of 85% reduction by weight, whichever is less stringent; 3-run average	A-378-72-B-A (November 18, 1999), BACT
Lead (Pb)	0.66 mg/dscm @ 7% O ₂ ; 3-run average	06-096 CMR 140, BPT

<u>Pollutant</u>	<u>lb/hour from EACH unit</u>	<u>Origin and Authority</u>
Antimony (Sb)	9.17x10 ⁻⁴	A-378-72-B-A (July 27, 1990) BACT
Arsenic (As)	1.45x10 ⁻³	
Beryllium (Be)	9.42x10 ⁻⁶	
Cr (Hexavalent)	2.42x10 ⁻⁴	
Cr (Total)	2.42x10 ⁻²	
Copper (Cu)	8.25x10 ⁻³	
Flourides (as HF)	0.13	A-378-72-B-A (July 27, 1990) BACT
Formaldehyde	0.07	
Nickel (Ni)	1.95x10 ⁻²	
Selenium (Se)	7.02x10 ⁻⁴	
Sulfuric Acid Mist	0.693	
Zinc (Zn)	8.25x10 ⁻²	

MMWAC shall demonstrate compliance with lb/hour emission limits by stack testing when requested by the Department.

This condition shall replace Part D of Specific Condition (20) of Air Emission License A-378-70-B-R/A (August 12, 2013).

20. Operating Practices

Each Combustor shall meet the following operating practice standards:

D. Pit Venting [06-096 CMR 140, BPT] Enforceable by State-only

1. MMWAC shall operate primary and secondary fans to move air from the pit for use as combustion air in the Combustors and to destroy odors emanating from the MSW. During periods when one or both of the Combustors are not in operation, the induced draft fans will continue to operate, allowing a slight negative pressure in the pit to vent some or all of the pit air through the primary and secondary ducts, through the Combustor, and out the stack. However, during maintenance outages when the units are shut down, the induced draft fans may not always run,

as may be required to facilitate specific maintenance activities. Such instances shall be documented and such documentation made available to the Department upon request.

2. During periods when MSW is not being received, the truck entry doors shall remain in the closed position except when operating conditions require they be open to permit rolling stock or trailers to move into or out of the building, with the following allowed exceptions:
 - a. Pit doors and smoke vents on the pit roof may be in the open position to the extent necessary for performing testing and maintenance, and for limited times during maintenance outages.
 - b. In addition, pit doors and smoke vents may be in the open position as necessary when birds are accidentally admitted to the pit and have difficulty getting out, to facilitate the freeing of the wildlife in as brief and effectual a manner as possible.
3. MMWAC shall not use the bunkers as a waste storage area during times of prolonged facility outages or maintenance. There shall be no outside storage of MSW.

Part C of Specific Condition (23) of Air Emission License A-378-70-B-R/A (August 12, 2013) is hereby removed from the Air Emission License.

This condition shall replace Part B of Specific Condition (25) of Air Emission License A-378-70-B-R/A (August 12, 2013).

25. Emergency Units: Emergency Diesel Generator, Fire Pump Engine

B. Diesel Fuel Sulfur Content

1. Prior to July 1, 2016, the diesel fuel fired at MMWAC shall not exceed a sulfur content of 0.05% by weight. [06-096 CMR 140, BPT]
2. Beginning July 1, 2016, or on the date specified in 38 MRSA §603-A(2)(A)(3), diesel fuel fired at the MMWAC facility shall not exceed a sulfur content of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
3. Beginning January 1, 2018, or on the date specified in 38 MRSA §603-A(2)(A)(3), diesel fuel fired at the MMWAC facility shall not exceed a

sulfur content of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]

- Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 140, BPT]

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

The term of this amendment shall be concurrent with the term of Air Emission License A-378-70-B-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 25, 2013

Date of application acceptance: November 26, 2013

Date filed with the Board of Environmental Protection:

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

