



COMMONWEALTH OF MASSACHUSETTS  
 EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 METROPOLITAN BOSTON – NORTHEAST REGIONAL OFFICE

MITT ROMNEY  
 Governor

ELLEN ROY HERZFELDER  
 Secretary

KERRY HEALEY  
 Lieutenant Governor

ROBERT W. GOLLEDGE, Jr.  
 Commissioner

## FINAL AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("The Department") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

**ISSUED TO ["the Permittee"]:**

Massachusetts Water Resources Authority  
 Charlestown Navy Yard  
 100 First Avenue  
 Boston, MA 02129

**INFORMATION RELIED UPON:**

Application No. MBR-95-OPP-014  
 Transmittal No. 98957

**FACILITY LOCATION:**

Deer Island Treatment Plant  
 PO Box 100  
 Winthrop, Massachusetts 02152

**FACILITY IDENTIFYING NUMBERS:**

SSEIS ID: 1191899  
 FMF FAC NO. 31482  
 FMF RO NO. 162601

**NATURE OF BUSINESS:**

Sewage Treatment Facility

**SIC CODE:**

4952

**RESPONSIBLE OFFICIAL:**

Name: Mr. Michael Hornbrook  
 Title: Chief Operating Officer

**FACILITY CONTACT PERSON:**

Name: Mr. David Duest  
 Title: Manager, Process Control  
 Phone: (617) 660-7870

**This Operating Permit shall expire on \_\_\_\_\_.**

For the Department of Environmental Protection, Bureau of Waste Prevention

\_\_\_\_\_  
 Edward P. Kunce  
 Acting Regional Director

\_\_\_\_\_  
 Date

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# SPECIAL CONDITIONS FOR OPERATING PERMIT

## 1. PERMITTED ACTIVITIES

In accordance with the provisions of 310 CMR 7.00:Appendix C and applicable rules and regulations, the Permittee is authorized to operate air emission units as shown in Table 1 and exempt and insignificant activities, as described in 310 CMR 7.00: Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this Permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this Permit.

## 2. EMISSION UNIT IDENTIFICATION

The following emission units (Table 1) are subject to and regulated by this Operating Permit:

<b>Table 1 Emission Unit Identification</b>			
EU#	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE (PCD)
1	Zurn Boiler 101	215,040,000 Btu/hr	PCD-1, Low-NOx burner/flue gas recirculation
2	Zurn Boiler 201	215,040,000 Btu/hr	PCD-2, Low-NOx burner/flue gas recirculation
3	CTG1, Turbopower & Marine FT8 Combustion Turbine Generator	256,300,000 Btu/hr	PCD-3, Water injection
4	CTG2, Turbopower & Marine FT8 Combustion Turbine Generator	256,300,000 Btu/hr	PCD-4, Water injection
5	Module 1 Flare	80,000 scfh	N/A
6	Module 2 Flare	80,000 scfh	N/A
7	Module 3 Flare	80,000 scfh	N/A
8	Gasoline Dispensing Facility	5,800 gallons	PCD-5, Stage II Vapor Recovery (vapor balance)
9	Primary Wastewater Treatment	1,200 Mgd Wastewater Flow	PCD-6, Wet Scrubber and/or Carbon Adsorption
10	Secondary Wastewater Treatment	810 Mgd Wastewater flow	PCD-7, Carbon Adsorption
11	Primary Residuals Management	Primary sludge and scum	PCD-8,- Wet Scrubber and/or Carbon Adsorption
12	Secondary Residuals Management	Secondary sludge and digested sludge	PCD-9, Wet Scrubber and/or Carbon Adsorption
13	North Main Pump Station	910 Mgd Wastewater Flow	PCD-10, Wet Scrubber and/or Carbon Adsorption

**Table 1 Key:**

- EU# = Emission Unit number
- N/A = Not Applicable
- Btu/hr = British thermal units per hour
- scfh = standard cubic feet per hour
- Mgd = Million gallons per day
- NOx = Nitrogen Oxides
- CTG = Combustion Turbine Generator

### 3. IDENTIFICATION OF EXEMPT ACTIVITIES

The following have been found to be exempt activities as provided in 310 CMR 7.00: Appendix C (5)(h):

Table 2 Exempt Activities	
DESCRIPTION OF CURRENT EXEMPTACTIVITIES	REASON
The list of current exempt activities is contained in the Operating Permit Application and shall be updated by the Permittee to reflect changes at the facility over the Permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the Department’s Regional Office.	310 CMR 7.00: Appendix C(5)(h)

### 4. APPLICABLE REQUIREMENTS

#### A. EMISSION LIMITS AND RESTRICTIONS

The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3 Emission Limits/Restrictions						
EU#	FUEL / RAW MATERIAL	POLLUTANT	EMISSION LIMIT/STANDARD (for each unit)	Restriction (Rate)	APPLICABLE REGULATION AND/OR APPROVAL NO.	
(1 & 2) <sup>2</sup>	Digester Gas	NO <sub>x</sub>	≤ 0.04 lbs/MMBtu <sup>1</sup> (8.6 lbs/hr)	69.8 tons per 365 day rolling period	MBR-92-COM-031	
		CO	≤ 0.04 lbs/MMBtu <sup>1</sup> (8.6 lbs/hr)	41.1 tons per 365 day rolling period		
		SO <sub>2</sub>	≤ 0.044 lbs/MMBtu <sup>1</sup> (9.46 lbs/hr)	49.5 tons per 365 day rolling period		
		PM	≤ 0.005 lbs/MMBtu <sup>1</sup> (1.08 lbs/hr)	19.4 tons per 365 day rolling period		
		VOC	≤ 0.003 lbs/MMBtu <sup>1</sup> (0.65 lbs/hr)	3.1 tons per 365 day rolling period		
	No. 2 Fuel Oil ≤ 0.05% S by weight	NO <sub>x</sub>	≤ 0.09 lbs/MMBtu <sup>1</sup> (19.4 lbs/hr)	See above, limits are for total combined emissions, regardless of fuel burned. <sup>3</sup>		
		CO	≤ 0.04 lbs/MMBtu <sup>1</sup> (8.6 lbs/hr)			
		PM	≤ 0.03 lbs/MMBtu <sup>1</sup> (6.45 lbs/hr)			
		VOC	≤ 0.003 lbs/MMBtu <sup>1</sup>			
		SO <sub>2</sub>	≤ 0.051 lbs/MMBtu <sup>1</sup> (10.97 lbs/hr)			
N/A	1.2 pounds of SO <sub>2</sub> per 1,000,000 Btu of fuel input.		310 CMR 7.22			

**Table 3 (continued) Emission Limits/Restrictions**

EU#	FUEL / RAW MATERIAL	POLLUTANT	EMISSION LIMIT/STANDARD (for each unit)	Restriction (Rate)	APPLICABLE REGULATION AND/OR APPROVAL NO.
(3 & 4) <sup>2</sup>	No. 2 Fuel Oil ≤ 0.05% S by weight	NO <sub>x</sub>	See Section 3 of Special Terms and Conditions for State NO <sub>x</sub> Allowance Program requirements	N/A	310 CMR 7.27, 7.28 MBR-01-7.28-012
		NO <sub>x</sub>	≤ 61.4 lbs/hr <sup>1</sup> (55.0 ppmvd)	61.4 tons per twelve month rolling period, both units combined	MBR-02-COM-015
		CO	≤ 17.0 lbs/hr <sup>1</sup> (25.0 ppmvd at full load, 40 ppmvd at part load)	17.0 tons per twelve month rolling period, both units combined	
		SO <sub>2</sub>	≤ 13.8 lbs/hr <sup>1</sup> (8.0 ppmvd)	13.8 tons per twelve month rolling period, both units combined	MBR-02-COM-015
			N/A	1.2 pounds of SO <sub>2</sub> per 1,000,000 Btu of fuel input.	310 CMR 7.22
		PM	≤ 10.3 lbs/hr <sup>1</sup>	10.3 tons per twelve month rolling period, both units combined	MBR-02-COM-015
		VOC	≤ 2.0 lbs/hr <sup>1</sup> (5.0 ppmvd)	2.0 tons per twelve month rolling period, both units combined	
	N/A	N/A	Combined maximum fuel use (gallons): 1,428,000 per month 3,881,000 per rolling twelve month period. Maximum usage for export of power (Hours): 725 per unit per rolling twelve month period		
	No. 2 Fuel Oil	SO <sub>2</sub>	150 ppm, referenced to 15% oxygen, volume dry, ISO	N/A	40 CFR Part 60, Subpart GG
		NO <sub>x</sub>	STD = 0.0150 x (14.4)/Y + F <sup>4</sup>	N/A	
Sulfur in fuel		0.8 percent by weight	N/A		
(1, 2, 3, 4) <sup>2</sup>	Any Fuel	Smoke	< No. 1 of Chart <sup>5</sup> , except No. 1 to < No. 2 of Chart for ≤ 6 minutes during any one hour	310 CMR 7.06(1)(a)	
		Opacity <sup>6</sup>	≤ 20%, except 20% to < 40% for ≤ 2 minutes during any one hour, and never > 40%	310 CMR 7.06(1)(b) MBR-92-COM-031	

<b>Table 3 (continued) Emission Limits/Restrictions</b>					
<b>EU#</b>	<b>FUEL / RAW MATERIAL</b>	<b>POLLUTANT</b>	<b>EMISSION LIMIT/STANDARD (for each unit)</b>	<b>Restriction (Rate)</b>	<b>APPLICABLE REGULATION AND/OR APPROVAL NO.</b>
5, 6, 7	Digester Gas	NO <sub>x</sub>	≤ 3.38 lbs/hr	17 tons per 365 day rolling period	MBR-91-IND-007C
		VOC	≤ 0.35 lbs/hr	1.6 tons per 365 day rolling period	
		CO	≤ 18.8 lbs/hr	84.6 tons per 365 day rolling period	
		SO <sub>2</sub>	≤ 13.5 lbs/hr	60.9 tons per 365 day rolling period	
		PM	≤ 0.4 lbs/hr	1.8 tons per 365 day rolling period	
		N/A	N/A	Combined maximum fuel use: 720 million dscf per rolling 365 day period	
		N/A	N/A	Nominal Operating Temperature of 1600F	
8	Unleaded gasoline	VOC	Stage II Vapor Recovery System	N/A	310 CMR 7.24(6)
9 <sup>9</sup>	Primary Wastewater Treatment Process Air	TRS <sup>7</sup>	1.0 ppmv per exhaust stack (East or West)	0.5 tons per month, 4.0 tons per rolling twelve month period	MBR-91-IND-007B
		TNMHC	N/A	5.6 tons per month, 34.0 tons per rolling twelve month period	
10 <sup>9</sup>	Secondary Wastewater Treatment Process Air	TRS <sup>7</sup>	1.0 ppmv	0.125 tons per month 1.0 tons per rolling twelve month period	MBR-92-IND-056
		TNMHC	N/A	0.36 tons per month 2.2 tons per rolling twelve month period	
(11, 12) <sup>9</sup>	Primary and Secondary Residuals Management Process Air	TRS <sup>7</sup>	1.0 ppmv	0.25 tons per month 2.0 tons per rolling twelve month period	MBR-91-IND-007C MBR-91-IND-007D
		TNMHC	N/A	3.8 tons per month 23.3 tons per rolling twelve month period	
		NH <sub>3</sub>	N/A	N/A <sup>8</sup>	310 CMR Appendix C
13 <sup>9</sup>	North Main Pump Station Process Air	TRS <sup>7</sup>	1.0 ppmv	0.04 tons per month 0.23 tons per rolling twelve month period	MBR-91-IND-007A
		TNMHC	N/A	0.8 tons per month, 5.4 tons per rolling twelve month period	

• **Legend to Abbreviated Terms within Table 3:**

EU# = Emission Unit Number  
 ≤ = less than or equal to  
 < = less than  
 > = greater than  
 O<sub>2</sub> = Oxygen  
 lbs/hr = pounds per hour

ppmv = parts per million by volume  
 % = percent  
 lb/MMBtu = pounds per million British thermal units  
 NO<sub>x</sub> = Nitrogen Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide

PM = Particulate Matter  
 SO<sub>2</sub> = Sulfur Dioxide  
 dscf = dry standard cubic feet  
 S = Sulfur

TRS = Total reduced sulfur compounds, including Hydrogen Sulfide, measured as H<sub>2</sub>S for routine monitoring  
 TNMHC = Total non-methane hydrocarbons  
 NH<sub>3</sub> = Ammonia  
 N/A = not applicable

**Table 3 Notes:**

1. Compliance with emission limit(s)/standard(s) based on a one-hour averaging time. Allowable emission factors for EU's No. 1 and No. 2 are determined by the Btu-weighted fuel input when co-firing digester gas and No. 2 fuel oil.
2. The limits in Plan Approvals for EU 1, 2, 3 and 4 are more stringent than required under NSPS standards, and these units will be in compliance with NSPS subparts Db and GG
3. Annual emission limits apply at all times, **including** during startup, shutdown and malfunction excursions.
4. STD=allowable NO<sub>x</sub> emissions (percent by volume at 15 percent oxygen and on a dry basis). Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, as referenced in 40 CFR 60.332.

As referenced in 40 CFR 60.332, F shall be defined according to the nitrogen content of the fuel as follows:

fuel bound nitrogen, N, (percent by weight)	"Correction Factor" F (NO <sub>x</sub> percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	$0.004 + 0.0067(N-0.1)$
$N > 0.25$	0.005

where: N = nitrogen content of the fuel (percent by weight)

5. Chart means the Ringelmann Scale for grading the density of smoke, as published by the United States Bureau of Mines and as referred to in the Bureau of Mines Information Circular No. 8333, or any smoke inspection guide approved by the Department.
6. See Compliance Schedule Regarding Opacity monitoring of EU Nos. 3 & 4.
7. TRS Limits are "State Only" limits.
8. Information submitted by MWRA indicates that the annual ammonia (NH<sub>3</sub>) emissions will be less than 1.0 tons per any 12 month rolling period.
9. Compliance with limit based on one hour average.

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to the monitoring, testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10), as well as applicable requirements contained in Table 3:

<b>Table 4</b>	
EU#	MONITORING/TESTING REQUIREMENTS
1, 2	<p>In accordance with Approval MBR-92-COM-31 and this Operating Permit, the MWRA shall operate a Continuous Emissions Monitoring (CEM) system in order to monitor nitrogen oxides, carbon monoxide, sulfur dioxide, opacity and oxygen. The MWRA shall also provide CEM audit sample points/lines, which will permit the use of audit gas samples to challenge the sample acquisition system and analytical hardware of the CEM system. In addition, the MWRA shall comply with quality assurance and quality control measures as specified in 40 CFR Part 60, Appendix F. Quarterly cylinder gas audits and annual RATAs shall also be performed in accordance with the applicable regulations.</p> <p>In accordance with 310 CMR 7.04(2)(a) and Approval MBR-92-COM-31, and 40 CFR Part 60.43b(f),(g) the MWRA shall operate, and maintain a continuous opacity monitoring system connected to an alarm and integrated into the facility's continuous emissions monitoring system.</p> <p>Monitor and test EU Nos. 1 and 2 in accordance with 40 CFR Part 60.42b(j) and 40 CFR Part 60.44b(c),(h).</p>

<b>Table 4</b>	
<b>EU#</b>	<b>MONITORING/TESTING REQUIREMENTS</b>
3, 4	In accordance with 310 CMR 7.04(2)(a), no person shall cause, suffer, allow, or permit the burning of any grade oil or solid fuel in any fuel utilization facility having an energy input capacity rated by the Department equal to or greater than 40 MMBtu per hour, unless such facility is equipped with a smoke density sensing instrument and recorder which are properly maintained in an accurate operating condition, operates continuously and is equipped with an audible alarm to signal the need for combustion equipment adjustment or repair when the smoke density is equal to or greater than No. 1 of the Chart. Pursuant to the Department's authority through 310 CMR 7.00: Appendix C(9)(b)2., the monitoring of Opacity as determined in accordance with 40 CFR Part 60, Appendix A, Method 9 shall constitute compliance with this requirement. This method shall also apply to any detached plumes.
	The MWRA shall perform periodic 40 CFR Part 60, Appendix A, Method 9 opacity monitoring in order to comply with the requirements set forth in 310 CMR 7.04(2)(a). See Section 8 Compliance Schedule for further information.
	Monitoring to demonstrate compliance with the NO <sub>x</sub> Budget program shall comply with 310 CMR 7.27(11)(f-n) as applicable and ECP MBR-97-NO <sub>x</sub> -005 and MBR-00-7.28-012.
	In accordance with 310 CMR 7.28(11)(a)(1), any person who owns, leases, operates or controls a budget unit that commences operation before January 1, 2002, shall install, operate and 3, 4 successfully complete all applicable certification testing requirements for monitoring heat input, NO <sub>x</sub> emission rate and NO <sub>x</sub> mass emissions pursuant to the requirements of 40 CFR Part 75 Subpart H by May 1, 2002.
	In accordance with 310 CMR 7.28(11)(a)(4), all monitoring systems are subject to initial performance testing and periodic calibration, accuracy testing and quality assurance/quality control testing as specified in 40 CFR Part 75 Subpart H.
	As required by 310 CMR 7.28(11)(a)(5), during a period when valid data is not being recorded by a monitoring system approved under 310 CMR 7.28, the missing or invalid data must be replaced with default data in accordance with the provisions of 40 CFR 75.70(f). The applicable missing data procedures are specified in 40 CFR Part 75 for NO <sub>x</sub> emission rate in pounds per million British thermal units (lb/MMBtu), heat input, stack gas volumetric flow rate, oil density, Gross Calorific Value(GCV) or fuel flow rate.
	In accordance with 310 CMR 7.28(11)(a)(6), NO <sub>x</sub> emissions data must be reported to the NO <sub>x</sub> Emissions Tracking System (NETS) in accordance with 310 CMR 7.28(13).
	In accordance with 310 CMR 7.28(11)(a)(7), budget units must report data pursuant to the requirements of 310 CMR 7.28(11) for every hour.
	In accordance with 310 CMR 7.28(11)(b), any person who owns, leases, operates or controls a budget unit subject to 310 CMR 7.28 must comply with the notification requirements in 40 CFR 75.61, where applicable.
	Monitor and test subject emission units for NO <sub>x</sub> and SO <sub>2</sub> requirements in accordance with 40 CFR 60, Subpart GG.
	Continuous monitoring of the ratio of water to fuel being fired based on 40 CFR 60.334 (a).



<b>Table 4</b>	
<b>EU#</b>	<b>MONITORING/TESTING REQUIREMENTS</b>
1, 2, 3, 4	<p>Pursuant to the Department's authority through 310 CMR 7.00: Appendix C(9)(b)2., monitor sulfur content of each new shipment of fuel received. Compliance with Approvals MBR-92-COM-031, and MBR-02-COM-015, Regulation 310 CMR 7.05(1)(a)1, 40 CFR Part 60.42b(j), and 40 CFR Part 60, Subpart GG for sulfur content of the fuel can be demonstrated through fuel analysis. The analysis of sulfur content of the fuel shall be in accordance with the applicable ASTM test methods or any other method approved by the Department and EPA. Fuel sulfur information may be provided by fuel suppliers.</p> <p>The MWRA shall, as required in Approvals MBR-92-COM-031(Boilers), and MBR-02-COM-015 (CTG's), and this Operating Permit monitor, at a minimum the following operating parameters:</p> <ul style="list-style-type: none"> <li>a) Fuel consumption for EU Nos. 1, 2, 3, 4 (Boilers and CTG's); and</li> <li>b) Hours of operation for EU Nos. 1, 2, 3, 4 (Boilers and CTG's), including startup and shutdowns; and</li> <li>c) Cumulative emissions of NO<sub>x</sub>, PM, VOC, CO, and SO<sub>2</sub> on a daily basis for EU Nos. 1, 2 (MBR-92-COM-031), and Monthly for EU Nos. 3, 4 (MBR-02-COM-015).</li> </ul> <p>All other data necessary to demonstrate compliance with the emission limits set forth in Table 3 of this Operating Permit.</p>
5, 6, 7	<p>The MWRA shall, as required in Approval MBR-91-IND-007C, and this Operating Permit, monitor, at a minimum the following operating parameters:</p> <ul style="list-style-type: none"> <li>a) Amount of raw digester gas burned in millions of cubic feet; and</li> <li>b) The actual operating temperature, measured at the top of each flare, to verify "flame on" condition; and</li> <li>c) Cumulative emissions of NO<sub>x</sub>, PM, VOC, CO, and SO<sub>2</sub> on a daily basis.</li> </ul> <p>All other data necessary to demonstrate compliance with the emission limits set forth in Table 3 of this Operating Permit, including Opacity monitoring if and when requested by the Department.</p>
1, 2, 3, 4	In accordance with 310 CMR 7.04(4)(a), inspect and maintain fuel utilization facility in accordance with manufacturer's recommendations, and test for efficient operation at least annually.
5, 6, 7	In accordance with MBR-91-IND-007C, comply with applicable provisos under Compliance Testing and Long Term Monitoring Program requirements.
8	<p>In accordance with 310 CMR 7.24 (6), conspicuously post Stage II system operating instructions on both sides of all motor vehicle fuel dispensers which is clearly visible to the system operator during the refueling process. Such instructions shall include: a clear pictorial or written description of how to correctly dispense motor vehicle fuel using a Stage II system; a warning not to continue dispensing motor vehicle fuel ("topping off") after automatic system shutoff has engaged; and the telephone number of the Department's Stage II Consumer Hotline.</p> <p>Conduct operation and maintenance requirements in accordance with 310 CMR 7.24 (6)(b).</p> <p>Perform Compliance Testing and Certification Requirements in accordance with 310 CMR 7.24 (6)(c).</p>

<b>Table 4</b>	
<b>EU#</b>	<b>MONITORING/TESTING REQUIREMENTS</b>
9, 10, 11, 12, 13	The MWRA shall, as required in Approvals MBR-91-IND-007A, 007B, 007C, 007D, MBR-92-IND-056, and this Operating Permit, conduct periodic emissions testing to demonstrate compliance with the TRS and TNMHC emission limits specified in said Approvals, Table 3 of this Permit, and as per monitoring protocols approved by the Department. The testing shall be scheduled such that one Emission Unit each year will be tested on a rotating basis. This will result in a test being completed at each Emission Unit once every 5 years.
	MWRA shall, in accordance with Approvals MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056, and this Operating Permit, monitor, at a minimum the following operating parameters: <ul style="list-style-type: none"> <li>a) All concentrations, as measured at the exhaust stack of the air pollution control equipment, of TRS compounds for EU Nos. 9, 10, 11, 12, 13, and TNMHC for EU No. 10 (Approval MBR-92-IND-056); and</li> <li>b) All concentrations of TNMHC for EU Nos. 9,11,12,13 (Approvals MBR-91-IND-007A, 007B, 007C, 007D) as measured from the inlet to the air pollution control equipment; and</li> <li>c) Monitor actual daily air flow rates through the subject Emissions Units, as estimated using design flow rates from fans or other method approved by the Department; and</li> </ul>
	All other data necessary to demonstrate compliance with the emission limits set forth in the applicable Approvals and Table 3 of this Permit shall be monitored as well.
	That the MWRA shall, as required in Approvals MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056, and this Operating Permit, periodically inspect the subject equipment for malfunctions and deterioration of equipment or structures, operator error, and unpermitted discharges which may cause the release of hazardous constituents to the environment. The MWRA shall make its best efforts to conduct these inspections in such a manner so as to identify problems in time to correct them before they cause harm to public health, safety, or welfare, or the environment.
11, 12	The MWRA shall, as required in this Operating Permit and in accordance with Approvals MBR-91-IND-007C and 007D, perform monthly emissions monitoring for ammonia (NH <sub>3</sub> ) in order to demonstrate that the NH <sub>3</sub> emissions are less than one ton per year.
Facility Wide	The MWRA shall conduct Emissions Compliance Testing (Stack Testing), in accordance with 310 CMR 7.13, and 40 CFR Part 60, Appendix A, if and when requested by the Department or the United States Environmental Protection Agency (EPA)
	Monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.

<b>Table 5</b>	
<b>EU#</b>	<b>RECORD KEEPING REQUIREMENTS</b>
1, 2	<p>In accordance with Approval MBR-92-COM-31 and this Operating Permit, the MWRA shall maintain records generated as a result of the operation of the Continuous Emissions Monitoring (CEM) system, as well as the results of all CEM audits and quality assurance/quality control measures performed in accordance with 40 CFR Part 60, Appendix F, or any other testing done on the subject equipment.</p> <p>In accordance with 310 CMR 7.04(2)(a), Approval MBR-92-COM-31, 40 CFR Part 60.42b(j), and this Operating Permit, the MWRA shall maintain records generated as a result of the operation of the continuous opacity monitoring system.</p> <p>Maintain all monitoring and testing records for EU Nos. 1 and 2 in accordance with 40 CFR Part 60 Subpart Db.</p>
3, 4	<p>The MWRA must comply with all applicable record keeping requirements contained in 40 CFR 60, 40 CFR 72, 40 CFR 75, and 310 CMR 7.28.</p> <p>In accordance with 310 CMR 7.28(8)(e), information on the Authorized Account Representative (AAR) Form must be kept current.</p> <p>As required by 310 CMR 7.27(12), and 310 CMR 7.28(12), any person who owns, leases, operates or controls a budget unit must keep all measurements, data, reports and other information required by 310 CMR 7.27, and 7.28 for five years, or any other period consistent with the budget unit's Operating Permit.</p> <p>Consistent with the requirements of 310 CMR 7.04(2)(a), maintain records of opacity determined in accordance with 40 CFR Part 60, Appendix A, Method 9. This method shall also apply to any detached plumes.</p> <p>Maintain records for subject emission units in accordance with 40 CFR 60, Subpart GG.</p> <p>Maintain records of Continuous monitoring of the ratio of water to fuel being fired based on 40 CFR 60.334 (a).</p>
5, 6, 7	<p>The MWRA shall maintain adequate daily records for the subject units as required in Approval MBR-91-IND-007C, and this Operating Permit. These records shall contain, at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>a) Amount of raw digester gas burned in millions of cubic feet per month; and</li> <li>b) Cumulative emissions of NO<sub>x</sub>, PM, VOC, CO, and SO<sub>2</sub> on a daily basis; and</li> <li>c) The actual operating temperature, measured at the top of each flare, to verify "flame on" condition.</li> </ul> <p>All other data necessary to demonstrate compliance with the emission limits set forth in Table 3.</p> <p>That the MWRA shall keep adequate maintenance log books on-site as required in Approval MBR-91-IND-007C, and this Operating Permit. These log books shall contain at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>a) All relevant maintenance performed on EU Nos. 5, 6, 7 (each enclosed ground flare); and</li> <li>b) All flare malfunctions (time, date, downtimes, when restored, etc.)</li> </ul>
1, 2, 3, 4	<p>The MWRA shall maintain adequate daily records for the subject units as required in Approvals MBR-92-COM-031, and MBR-02-COM-015, and this Operating Permit. These records shall contain, at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>a) Fuel consumption for EU Nos. 1, 2, 3, 4 (Boilers and CTG's); and</li> <li>b) Hours of operation of each unit for EU Nos. 1, 2, 3, 4 (Boilers and CTG's) including startup and shutdowns; and</li> <li>c) Cumulative emissions of NO<sub>x</sub>, PM, VOC, CO, and SO<sub>2</sub> on a daily basis for EU Nos. 1, 2, (Approval MBR-92-COM-031), and Monthly for EU Nos. 3, 4 (Approval MBR-02-COM-015).</li> </ul> <p>All other data necessary to demonstrate compliance with the emission limits set forth in Table 3.</p>

<b>Table 5</b>	
<b>EU#</b>	<b>RECORD KEEPING REQUIREMENTS</b>
1, 2, 3, 4	<p>That the MWRA shall keep adequate maintenance log books on-site as required in Approvals MBR-92-COM-031, and MBR-02-COM-015, and this Operating Permit. These log books shall contain at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>a) All relevant maintenance performed on EU Nos. 1, 2 and the CEM system (Approval MBR-92-COM-031), as well as EU Nos. 3 and 4 (Approval MBR-02-COM-015); and</li> <li>b) All calibrations of the CEM systems such as Relative Accuracy Test Audits (Approval MBR-02-COM-015); and</li> <li>c) All fuel purchase order receipts.</li> </ul> <p>Pursuant to the Department's authority through 310 CMR 7.00: Appendix C(9)(b)2., maintain fuel analysis results used to demonstrate compliance with fuel sulfur content as required in Approvals MBR-92-COM-031, and MBR-02-COM-015, Regulation 310 CMR 7.05(1)(a)1, 40 CFR Part 60.42b(j), and 40 CFR Part 60, Subpart GG.</p> <p>In accordance with 310 CMR 7.04(4)(a), maintain results of all fuel utilization facility inspections, maintenance, and testing and the date upon which it was performed posted conspicuously on or near the subject equipment.</p>
5, 6, 7	In accordance with MBR-91-IND-007C, maintain results of applicable provisos in the Compliance Testing and Long Term Monitoring Program requirements.
8	<p>Maintain records of all persons trained to operate and maintain Stage II systems in accordance with 310 CMR 7.24(6)(b)2.</p> <p>Maintain on-site records of all weekly visual inspections of Stage II system, and all maintenance performed for the most recent rolling 12-month period in accordance with 310 CMR 7.24(6)(b)3.</p> <p>Maintain records of all compliance testing and certification requirements completed in accordance with 310 CMR 7.24 (6)(c).</p>
9, 10, 11, 12, 13	<p>The MWRA shall, as required in Approvals MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056, and this Operating Permit, maintain records of periodic emissions testing to demonstrate compliance with the TRS and TNMHC emission limits specified in said Approvals, Table 3 of this Permit, and as per monitoring protocols approved by the Department.</p> <p>The MWRA shall, in accordance with Approvals MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056, and this Operating Permit, maintain adequate operating records for the subject facilities. These records shall contain, at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>a) All monitored concentrations, as measured at the exhaust stack of the air pollution control equipment, of TRS compounds for EU Nos. 9, 10, 11, 12, 13, and TNMHC for EU No. 10 (Approval MBR-92-IND-056); and</li> <li>b) All monitored concentrations of TNMHC for EU nos. 9,11,12,13 (Approvals MBR-91-IND-007A, 007B, 007C, 007D) as measured from the inlet to the air pollution control equipment; and</li> <li>c) Actual daily air flow rates through the subject facilities, as estimated using design flow rates from fans or other method approved by the Department; and</li> </ul> <p>All other data necessary to demonstrate compliance with the emission limits set forth in the applicable Approvals and Table 3 of this Permit.</p> <p>The MWRA shall, in accordance with Approvals MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056 and this Operating Permit, keep adequate maintenance records for the odor control facilities. These records shall contain, at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>a) All relevant maintenance performed on each air pollution control unit; and</li> <li>b) All air pollution control equipment malfunctions (time, date, downtime, when restored, etc.).</li> </ul>
11, 12	The MWRA shall, as required in this Operating Permit and in accordance with Approval MBR-91-IND-007C and 007D, maintain records of monthly emissions monitoring for ammonia (NH3) that were performed in order to demonstrate that NH3 emissions were less than one ton per year.
Facility-wide	In accordance with Approvals MBR-92-COM-031, MBR-02-COM-015, MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056 as well as this Operating Permit, the MWRA shall maintain a copy of Standard Operating and Maintenance Procedures (SOMP) for the subject units on-site at all times.

<b>Table 5</b>	
<b>EU#</b>	<b>RECORD KEEPING REQUIREMENTS</b>
	Pursuant to the Department's authority through 310 CMR 7.00: Appendix C(9)(d), maintain the test results of any other testing or testing methodology required by the Department or EPA.
	Maintain records such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.
	Keep copies of Source Registration/Emission Statement Forms submitted annually to the Department as required by 310 CMR 7.12.
	In accordance with 310 CMR 7.00: Appendix C(10)(b), maintain records of all monitoring data and supporting information required by this Operating Permit on site for five (5) years from the date of the monitoring sample, measurement, report or initial Operating Permit Application.

<b>Table 6</b>	
<b>EU#</b>	<b>REPORTING REQUIREMENTS</b>
1, 2	The MWRA shall comply with all reporting requirements specified in accordance with Approval MBR-92-COM-31, this Operating Permit, and 40 CFR Part 60.42b(j), and 40 CFR Part 60, Appendix F.
3, 4	In accordance with 310 CMR 7.27(13)(a)2, 310 CMR 7.27(13)(b) & 310 CMR 7.27(13)(d), the MWRA shall submit to the U.S. EPA Acid Rain Division all NO <sub>x</sub> emissions and operating information for the second and third quarters of each year in accordance with the standards specified in 40 CFR Part 75 Subpart G. The second quarter information will only contain data for May and June of each calendar year. The submission must be in an electronic format which meets the requirements of EPA's Electronic Data Reporting (EDR) convention. Quarterly reports must contain NO <sub>x</sub> emissions in pounds per hour for every hour, and cumulative quarterly and seasonal NO <sub>x</sub> emissions data in pounds, in a format consistent with the EDR convention. For units not subject to 40 CFR Part 75 quarterly reports must be submitted within 30 days after the end of each calendar quarter for which they must report.
	As required by 310 CMR 7.28(13)(a)(1), for units commencing operation prior to May 1, 2002, the AAR must submit quarterly reports for each calendar quarter beginning with: the earlier of the calendar quarter that includes the date of initial certification or, if the certification tests are not completed by May 1, 2002, the partial calendar quarter from May 1, 2002 through June 30, 2002. Data shall be recorded and reported from the earlier of the date and hour corresponding to the date and hour of certification or the first hour on May 1, 2002.
	In accordance 310 CMR 7.28(13)(b), for budget units not using CEMS, all emissions and operating information in accordance with the standards specified in 40 CFR Part 75 Subpart H and 40 CFR 75.64 must only be submitted for the ozone season.
	The MWRA must comply with all applicable reporting requirements contained in 40 CFR 60, 40 CFR 72, 40 CFR 75, and 310 CMR 7.28.
	In accordance with 310 CMR 7.28(13)(c)(2), for units not subject to an Acid Rain Emissions limitation, quarterly reports are only required to include all of the data and information required in 40 CFR Part 75 Subpart H for each NO <sub>x</sub> Budget unit (or group of units using a common stack).
	In accordance with the requirements of 310 CMR 7.28(13), NO <sub>x</sub> emissions data must be reported pursuant to the requirements of 310 CMR 7.28(11)(a)(6), (a)(7), and (b).
	In accordance with the requirements of 310 CMR 7.28(11)(a)(6), NO <sub>x</sub> emissions data should be reported directly to EPA's National Computer Center mainframe computer in a method acceptable to EPA. The deadline to submit data to EPA is 30 days after the end of each calendar quarter.
	In accordance with 310 CMR 7.28(13)(e), by October 31 of each year, any person who owns, leases, operates or controls a new or existing budget unit must report to the Department each facility's metered net electric and useful steam output for that year's control period. Net electric output must be reported in megawatt-hours, and steam output in MMBtu. If data for steam output is not available, the person may report heat input providing useful steam output as a surrogate for steam output or in a method approved by the Department.

<b>Table 6</b>	
<b>EU#</b>	<b>REPORTING REQUIREMENTS</b>
3, 4	In accordance with 310 CMR 7.28(15), for each control period, the AAR for the budget unit shall submit by November 30 of each year, an annual compliance certification report to the Department and the NATS Administrator. The compliance certification shall contain, at a minimum, the items listed in 310 CMR 7.28(15)(c)1 through 8.
	Notification of Quality Assurance (QA) testing is required for Relative Accuracy Test Audits (RATAs) and Appendix E/LME (Low Mass Emission) unit tests. Notification must be made at least 21 days prior to the scheduled test date to the EPA as required by 40 CFR 75.61, to the DEP Lawrence office at DEP, Wall Experiment Station, 37 Shattuck Street, Lawrence, MA 01843-1398 Attn: Source Monitoring Section, and to the DEP Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR 75.61(a)(5).
	A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addresses all previous DEP protocol comments to the satisfaction of the DEP, and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.
	In accordance with 310 CMR 7.28 and 40 CFR Part 75, a hardcopy of the QA RATA or Appendix E/LME test results must be submitted to both the DEP Lawrence and DEP Northeast Regional Office within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR).
	In accordance with 310 CMR 7.28 and 40 CFR Part 75, results from QA daily calibrations, quarterly linearity checks and Appendix D Fuel Flowmeter tests must be reported electronically in the EDR submittal for the quarter in which the testing occurs.
	The MWRA shall comply with all reporting requirements specified in accordance with Approval 40 CFR Part 60, Subpart GG.
1, 2, 3, 4	The MWRA shall as required by Approvals MBR-92-COM-031, and MBR-02-COM-015, and this Operating Permit, to submit quarterly compliance reports to this Office, attention Permit Chief, Bureau of Waste Prevention. These quarterly reports shall be submitted within 30 days after the end of each quarter (January - March, April - June, July - September, October - December), and shall contain the following information, based on a rolling 12-month calendar period: <ul style="list-style-type: none"> <li>a) Fuel consumption for EU Nos. 1, 2, 3, 4 (Boilers and CTG's); and</li> <li>b) Hours of operation of each unit for EU Nos. 1, 2, 3, 4 (Boilers and CTG's) including startup and shutdowns; and</li> <li>c) Cumulative emissions of NO<sub>x</sub>, PM, VOC, CO, and SO<sub>2</sub> on a daily basis for EU Nos. 1, 2, (Approval MBR-92-COM-031), and Monthly for EU Nos. 3, 4 (Approval MBR-02-COM-015).</li> </ul>
	All other data necessary to demonstrate compliance with the emission limits set forth in Table 3.
5, 6, 7	The MWRA shall as required by Approval MBR-91-IND-007C, and this Operating Permit, submit quarterly compliance reports to this Office, attention Permit Chief, Bureau of Waste Prevention. These quarterly reports shall be submitted within 30 days after the end of each quarter (January - March, April - June, July - September, October - December), and shall contain the following information, based on a rolling 12-month calendar period: <ul style="list-style-type: none"> <li>a) Amount of raw digester gas burned in millions of cubic feet per day; and</li> <li>b) Cumulative emissions of NO<sub>x</sub>, PM, VOC, CO, and SO<sub>2</sub> on a daily basis; and</li> <li>c) Any deviations of the actual operating temperature, measured at the top of each flare, to verify "flame on" condition.</li> </ul>
	All other data necessary to demonstrate compliance with the emission limits set forth in Table 3.
8	The MWRA shall submit all required reports and information to the Department in accordance with Regulation 310 CMR 7.24 (6).

<b>Table 6</b>	
<b>EU#</b>	<b>REPORTING REQUIREMENTS</b>
9, 10, 11, 12, 13	<p>That MWRA shall as required by Approval Nos. MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056, submit quarterly compliance reports to this Office, attention Permit Chief, Bureau of Waste Prevention. These quarterly reports shall be submitted within 30 days after the end of each quarter (January - March, April - June, July - September, October - December), and shall contain the following information, based on a rolling 12-month calendar period:</p> <ol style="list-style-type: none"> <li>a) The actual monthly emissions of TRS compounds, TNMHC from the subject facility for each rolling 12-month calendar period, ending in the subject quarter; and</li> <li>b) The actual emissions of TRS compounds, TNMHC for each rolling 12-month calendar period ending in the subject quarter; and</li> <li>c) Any exceedance(s) of the 1.0 ppmv of TRS compounds at the stacks during the subject quarter.</li> </ol>
Facility-wide	<p>In accordance with 310 CMR 7.00: Appendix C (10)(d), submit, upon request, the test results of <u>any other testing or testing methodology required by the Department or EPA.</u></p> <p>Submit a Source Registration/Emission Statement form to the Department on an annual basis in accordance with 310 CMR 7.12.</p> <p>Submit by January 30 and July 30 for the previous six months respectively, a summary of all monitoring data and related supporting information to the Department as required by 310 CMR 7.00: Appendix C(10)(c).*</p> <p>Submit Annual Compliance report to the Department and EPA as required by General Condition 10. All required reports must be certified by a responsible official as provided in 310 CMR 7.00: Appendix C(10)(h).*</p> <p>As required by this Operating Permit and Approvals MBR-92-COM-031, MBR-02-COM-015, MBR-91-IND-007A, 007B, 007C, 007D, and MBR-92-IND-056, the MWRA shall notify this Office within 24 hours by fax or email and subsequently in writing, within seven (7) days thereof, of any major system upsets or major malfunctions of the air pollution control equipment, operator errors, and/or unpermitted releases that caused or could have caused harm to public health, safety or welfare and/or the environment while operating the equipment subject to this Operating Permit and Applicable Approval. The MWRA shall submit the written confirmation to this Office, attention Compliance and Enforcement Chief, Bureau of Waste Prevention, which shall include dates, duration, and description of the incident, possible reason(s) for it and future actions to be undertaken to prevent such incidents from recurring.</p> <p>Promptly report to the Department all instances of deviations from Permit requirements which are not otherwise reported to the Department by telephone, fax, or email within three days of discovery of such deviation, as provided in 310 CMR 7.00: Appendix C (10)(f). (See General Condition 25).*</p> <p>All required reports must be certified by a responsible official as provided in 310 CMR 7.00: Appendix C(10)(h).</p>

- Forms available on the DEP web site: <http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>

**C. GENERAL APPLICABLE REQUIREMENTS**

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et. seq. and 310 CMR 8.00 et. seq., when subject.

**D. REQUIREMENTS NOT CURRENTLY APPLICABLE**

The Permittee is currently not subject to the following requirements, contained in Table 7 below:

<b>Table 7 Requirements Not Currently Applicable</b>	
<b>Regulation</b>	<b>Description</b>
310 CMR 7.25	Consumer and Commercial Products
42 U.S.C. 7401, §112	Hazardous Air Pollutants
42 U.S.C. 7401 § 112(r)	Accidental Release Prevention Requirements: Risk Management under Clean Air Act 112(r)(7)

## 5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to the following special terms and conditions that are not contained in Tables 3, 4, 5, and 6:

- 1) That should any nuisance condition(s) be generated by the operation of this facility, then appropriate steps will immediately be taken by MWRA to abate said nuisance condition(s) (State Only 310 CMR 7.01(1)).
- 2) MWRA Deer Island has indicated that it is subject to, and complying with, the requirements of 310 CMR 7.16, U Reduction of Single Occupant Commuter Vehicle Use. MWRA Deer Island shall continue to comply with 310 CMR 7.16.
- 3) State NO<sub>x</sub> Allowance Program
  - a. EU03 and EU04 are subject to the requirements of the NO<sub>x</sub> Allowance Program, 310 CMR 7.27. The Department issued a Phase I Emission Control Plan (ECP) Approval for this facility on November 19, 1997, a Phase II ECP Approval on November 16, 1998, and a Phase III ECP Approval on December 16, 1999.
  - b. As per 310 CMR 7.27(6), The Authorized Account Representative (AAR) or Alternate Authorized Account Representative (AAAR) may buy, sell, trade, or transfer allowances for or between NO<sub>x</sub> Allowance Tracking System (NATS) compliance accounts at any time, up until December 31 of the corresponding ozone season. By December 31 of each year, the AAR must hold in the NO<sub>x</sub> NATS compliance account for each EU at least one allowance for each ton of NO<sub>x</sub> emitted during the corresponding ozone season (May 1 through September 30). The number of allowances actually held in a NATS compliance account for an affected EU may differ from the number allocated by the Department.
  - c. EU03 and EU04 are classified as “Full Allocation Units” as per 310 CMR 7.27(6). Full Allocation Unit allocations are listed in 310 CMR 7.27(6) Table 1. The unit allowance allocations for MWRA are identified below:

ORISPL Number	Maximum Possible Allocation
10823	62

By May 1, 2003, the NO<sub>x</sub> allowance allocation for each NATS compliance account will be amended according to the new State allowance cap (see Special Condition 3).

- d. As per 310 CMR 7.27(8)(c) NO<sub>x</sub> Allowance transfers must occur as follows:
 

The transfer request must be on a form, or electronic media in a format determined by the NATS. Requests must be submitted to the EPA and include at a minimum: the account numbers identifying both the originating account and the acquiring account; and, the names and addresses associated with the owners of the originating account and the acquiring account; and the serial number for each allowance being transferred. The transfer request must be authorized and certified by the AAR for the originating account. To be considered correctly submitted, the request must include the statement of certification contained in 310 CMR 7.27 (8) (c) 2 verbatim.
- e. As per 310 CMR 7.27(8)(i), any budget unit must make available to the Department, upon request, information regarding transaction cost and allowance price.



- f. As per 310 CMR 7.27(14)(b), each year during the period November 1 through December 31, inclusive, the AAR for each budget unit must request the NATS administrator to deduct current year allowances from the compliance account equivalent to the NO<sub>x</sub> emissions from the budget unit in the current control period. The request must be submitted by the AAR to the NATS Administrator no later than December 31. The request must identify the compliance account from which the deductions should be made, and, if desired, the serial numbers of the allowances to be deducted.
  - g. As per 310 CMR 7.27(10)(d), the AAAR has the same authority as the AAR.
  - h. As per 310 CMR 7.27(15), for each control period the AAR for the budget unit must submit by December 31st of each year an annual compliance certification. The Compliance Certification shall contain, at a minimum, the items listed in 310 CMR 7.27(15)(c)1 through 6.
  - i. Modifications to the Emission Control Plan must be approved by the Department and implemented in accordance with the procedures of the Final ECP Approval.
- 4) State NO<sub>x</sub> Allowance Trading Program, 310 CMR 7.28
- a. EU03 and EU04 are subject to the requirements of NO<sub>x</sub> Allowance Trading Program, 310 CMR 7.28, which establishes a State trading program budget for NO<sub>x</sub> during control periods beginning May 1, 2003. The Department issued an Emission Control Plan (ECP) for the MWRA on November 25, 2003 and the Permittee shall comply with all applicable requirements contained in 310 CMR 7.28, and all approval letters issued in accordance with 310 CMR 7.28
  - b. NO<sub>x</sub> Allowance use and transfer must comply with 310 CMR 7.28(10).
  - c. In accordance with 310 CMR 7.28(14), each year by November 30, for each budget unit, the total number of banked or current year allowances in its compliance or overdraft account must equal or exceed the NO<sub>x</sub> emissions from the budget unit in the current control period.
  - d. Each budget unit shall meter electric output in accordance with the approved monitoring methodology contained in Table II of the ECP Approval Number MBR-01-7.28-012.
    - i. In the case where non-billing meters are used to determine output, if the facility decides to adopt a system approach to accuracy then a system accuracy of 10.0% must be achieved. If testing an output measurement system shows that the output readings are not accurate to 10.0% or less, then the measurement equipment must be retested or replaced, and meet that requirement. If the facility decides to adopt a component approach to accuracy, then a component accuracy of 3.0% must be achieved. If testing a piece of output measurement equipment shows that the output readings are not accurate to 3.0% or less of the full scale, then the measurement equipment must be retested or replaced, and meet that requirement. When a non-billing system fails to meet the 10% or 3% requirement, data should be considered invalid, prospectively, for purposes of determining allocations. Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. The invalid data must be omitted and either zero or an output value that is likely to be lower than a measured value must be reported.
    - ii. Output measurement equipment must be tested for accuracy or recalibrated at least once every two years, in accordance with applicable consensus or NIST traceable standards, unless a standard allows for less frequent calibrations or accuracy tests.

- 5) In accordance with Approval MBR-02-COM-015, and Pursuant to 40 CFR 60.8, the MWRA shall conduct emissions compliance testing on EU Nos. 3 and 4 (CTGs 1 and 2), no later than February 29, 2004, or as otherwise approved by the Department. This compliance testing shall be performed to demonstrate the ability of CTGs 1 and 2 to meet the emission rates delineated in Table 3 of this Permit. Specific air emissions under several loads shall be determined during compliance testing.

The MWRA shall conduct said compliance testing in accordance with the test methods and procedures required pursuant to 40 CFR Part 60 Subpart GG and Appendix A. The compliance testing may be witnessed by Department personnel. Scheduling for the requisite emissions compliance testing shall be coordinated with Department personnel and shall be confirmed no later than 30 days prior to the target test date(s).

As Required in Approval MBR-02-COM-015, the MWRA shall submit to this Office, attention Permit Chief, Bureau of Waste Prevention, a pretest protocol for the required compliance testing for review and Department approval. This pretest protocol shall be submitted at least 60 days prior to commencement of the compliance testing. The protocol shall describe sampling for oxygen (to be used as reference gas), and any other parameter required under 40 CFR Part 60, Subpart GG, and Appendix A. The protocol shall also describe sampling point locations, sampling equipment, sampling and analytical procedures, and the operating conditions for the required testing.

As Required in Approval MBR-02-COM-015, the MWRA shall submit the emissions compliance testing results report to the Northeast Regional Office, Attention Permit Chief, Bureau of Waste Prevention, within 60 days of completion of this testing for review and Department approval.

- 6) Per data as supplied through the Permittee's Operating Permit Application (MBR-95-OPP-014, Transmittal No. 98957), all EUs shall continue to emit products of combustion or processes through the appropriate stacks having the following parameters:

EU No.	Height (feet)	Diameter (inches)	Exit Velocity, Maximum (feet per second)	Temperature, Maximum (Fahrenheit)	Stack Material
1, 2	150	48	86.5	350	Steel
3	90	119	94	730	Stainless Steel
4	90	119	94	730	Stainless Steel
5	41	75	N/A	1600	Steel
6	41	75	N/A	1600	Steel
7	45	94	N/A	1600	Steel
9	135	96	53	90	Lined Steel
10	100	48	32	90	Lined Steel
11, 12	135	96	31	90	Lined Steel
13	100	42	34	90	Lined Steel

- 7) The Permittee is subject to, and has stated in their operating permit application (MBR-95-OPP-014, Transmittal No. 98957), that they are in compliance with the requirements of 40 CFR Part 82: Protection of Stratospheric Ozone. These requirements are applicable to this facility and the United States Environmental Protection Agency (EPA) enforces these requirements.
- 8) That the MWRA shall comply with any and all requirements in accordance with applicable Approval issued by the Department for the subject facility.

## 6. ALTERNATIVE OPERATING SCENARIOS

The Permittee did not request alternative operating scenarios in its Operating Permit Application.

## **7. EMISSIONS TRADING**

(a) Intra-facility emissions trading

The facility did not request intra-facility emissions trading in its Operating Permit Application.

Pursuant to 310 CMR 7.00: Appendix C(7)(b), emission trades, provided for in this Permit, may be implemented provided the Permittee notifies The United States Environmental Protection Agency (EPA) and the Department at least fifteen (15) days in advance of the proposed changes and the Permittee provides the information required in 310 CMR 7.00: Appendix C(7)(b)3.

Any intra-facility change that does not qualify pursuant to 310 CMR 7.00: Appendix C(7)(b)2 is required to be submitted to the Department pursuant to 310 CMR 7.00: Appendix B.

(b) Inter-facility emissions trading

The Permittee did not request inter-facility emissions trading in its Operating Permit Application.

All increases in emissions due to emissions trading, must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and the 42 U.S.C. §7401 et seq. (the "Act"), and provided for in this Permit.

## **8. COMPLIANCE SCHEDULE**

The Permittee has indicated that with the exception of the opacity monitoring requirements, the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5. In addition, the Permittee shall comply with any applicable requirements that become effective during the Permit term.

With regard to Emission Units 1 and 2: the present continuous opacity monitoring systems (COMS) software reports opacity based on 6 minute averages. Within one year of issuance of the final Operating Permit, MWRA will implement an upgrade of the COMS software to provide opacity data based on 1 minute averages. In the interim, MWRA will evaluate deviations from the opacity standards based on 6 minute averages.

With regard to Emission Units 3 and 4 opacity monitoring requirements: the MWRA shall, within 120 days of the issuance of the Final Operating Permit, submit a Periodic Opacity Monitoring Plan to the Department. The execution of said plan shall serve to ensure compliance with Regulation 310 CMR 7.04(2)(a) and this Operating Permit.

With regard to Emission Units 1, 2, 3, and 4: The present continuous monitoring system software reports of excess emissions require semi-automated data manipulation that is currently done on a quarterly basis. Within one year of issuance of the Final Operating Permit, MWRA will implement an upgrade of the CMS software to provide daily reports of excess emissions. In the interim, MWRA will report deviations associated with this data in the quarterly reports.

# **GENERAL CONDITIONS FOR OPERATING PERMIT**

## **9. FEES**

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

## 10. COMPLIANCE CERTIFICATION

All documents submitted to the Department shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the Department's web site'

<http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>

### (a) Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 to the Department and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- iv. any additional information required by the Department to determine the compliance status of the source.

### (b) Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 and July 30 to the Department. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- iv. whether there were any deviations during the reporting period;
- v. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- vi. whether deviations in the reporting period were previously reported;
- vii. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- viii. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and

- ix. any additional information required by the Department to determine the compliance status of the source.

## **11. NONCOMPLIANCE**

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act and is grounds for enforcement action, for permit termination or revocation; or for denial of an operating permit renewal application by the Department and/or EPA.

Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00 and civil penalties under M.G.L. c.111, §142A and 142B.

This permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this permit.

## **12. PERMIT SHIELD**

- (a) This facility has a permit shield provided that it operates in compliance with the terms and conditions of this permit. Compliance with the terms and conditions of this permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the Permittee's application and as identified in this permit.

Where there is a conflict between the terms and conditions of this permit and any earlier permit, the terms and conditions of this permit control.

- (b) The Department has determined that the Permittee is not currently subject to the requirements listed in Section 4, Table 7.
- (c) Nothing in this permit shall alter or affect the following:
  - i. the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.
  - ii. the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
  - iii. the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

## **13. ENFORCEMENT**

The following regulations found at 310 CMR 7.02(8)(h) Table 6, for wood only, 7.02(8)(i), 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA, or citizens.

All other terms and conditions contained in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the Department, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

## **14. PERMIT TERM**

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date five (5) years after the issuance of this permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

## **15. PERMIT RENEWAL**

Upon the Department's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the Department on the renewal application.

In the event the Department has not taken final action on the operating permit renewal application prior to this permit's expiration date, this permit shall remain in effect until the Department takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

## **16. REOPENING FOR CAUSE**

This permit may be modified, revoked, reopened, and reissued, or terminated for cause by the Department and/or EPA. The responsible official of the facility may request that the Department terminate the facility's operating permit for cause. The Department will reopen and amend this permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an operating permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any operating permit condition.

## **17. DUTY TO PROVIDE INFORMATION**

Upon the Department's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records that the Permittee is required to retain by this permit.

## **18. DUTY TO SUPPLEMENT**

The Permittee, upon becoming aware that any relevant facts were omitted or that incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The Permittee shall promptly, on discovery, report to the Department a material error or omission in any records, reports, plans, or other documents previously provided to the Department.

## **19. TRANSFER OF OWNERSHIP OR OPERATION**

This permit is not transferable by the Permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, liability between current and new Permittee has been submitted to the Department.

## **20. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

## **21. INSPECTION AND ENTRY**

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the Department and EPA to perform the following:

- (a) Enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C.(3)(g)12.

## **22. PERMIT AVAILABILITY**

The Permittee shall have available at the facility at all times a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the permit, including any amendments or attachments thereto, upon request by the Department or EPA.

## **23. SEVERABILITY CLAUSE**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

## **24. EMERGENCY CONDITIONS**

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this permit as a result of an emergency<sup>2</sup>. In order to use emergency as an affirmative defense to an action brought for noncompliance, the

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<sup>1</sup> Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

<sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was at the time being properly operated;
- (c) during the period of the emergency the Permittee took all reasonable steps as expeditiously as possible to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- (d) the Permittee submitted notice of the emergency to the Department within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response, immediate notification to the appropriate parties should be made as required by law.

## **25. PERMIT DEVIATION**

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6. of this Operating Permit shall supercede the following deviation reporting requirements, if applicable.

The Permittee shall report to the Department's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- Exceedances of parameter limits established by your Operating Permit or other Approvals, where the parameter limit is identified by the permit or Approval as surrogate for an emission limit.
- Exceedances of permit operational limitations directly correlated to excess emissions.
- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other Approvals.
- Failure to perform QA/QC measures as required by your Operating Permit or other Approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts Department of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via the Department's web site, <http://www.state.ma.us/dep/daqc/aqforms.htm> . This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations which do not require 3 day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.



## **26. OPERATIONAL FLEXIBILITY**

The Permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the permit, and in compliance with all applicable requirements, provided the Permittee gives the EPA and the Department written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

## **27. MODIFICATIONS**

- (a) Administrative Amendments - The Permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- (b) Minor Modifications - The Permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- (c) Significant Modifications - The Permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- (d) No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

## **APPEAL CONDITIONS FOR OPERATING PERMIT**

This permit is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the Department's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the permit is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

The Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The Department may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.