COVANTA
Powering Today. Protecting Tomorrow.

Covanta Union, Inc.
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Tel 732 499 0101
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February 13, 2018

Mr. Harry Baist
NJDEP, Air Quality, Energy and Sustainability
Division of Air Quality
Bureau of Stationary Sources
401 East State Street, 2nd Floor
P.O. Box 420
Mail Code 401-02
Trenton, NJ 08625-0420

Re: Covanta Union, Inc.
Union County Resource Recovery Facility
Permit Activity Number: BOP140002
Program Interest Number: 41814
Title V Renewal

Dear Mr. Baist:

Covanta Union hereby submit this Title V Air Operating Permit Renewal Application for the Union County Resource Recovery Facility (UCRRF) that includes the following components:

- Completed RADIUS Air Operating Permit Renewal Forms;
- Completed *Attachment to the Radius Air Operating Permit Renewal Application (August 3, 2017 revision; pdf file)*. This Attachment includes Certification by the Responsible Official(s), Summary of 7-Day Notice Changes, Summary of Results from Stack Testing and Monitoring and Summary of Compliance Status.
- As an Appendix to *Attachment to the Radius Air Operating Permit Renewal Application (August 3, 2017 revision),* Appendix A provides a summary of all stack test results from 2013 – 2017 and a summary of all Excess Emissions Events (including those that occurred during startup, shutdown and malfunction) and any other permit deviations that occurred from January 1, 2013 through December 31, 2017, as well as, a summary of any permit conditions with which compliance was intermittent during the 5-year permit term. Appendix A is included to provide a comprehensive summary of the facility's compliance during the permit term.

- Provided as an addendum to the Permit Renewal Application is an Application for Administrative Amendments to the Title V Permit to address inconsistencies in the facility's Title V permit, clarify language, and delete conditions that no longer apply, as well as address some conditions that should be augmented to be current and complete. None of the requested changes involve changes to any emission sources.

Covanta Union submitted a CAM Applicability Analysis for the UCRRF with the February 2008 Title V Permit Renewal Application. The CAM analysis demonstrated(s) that the facility's current monitoring requirements meet the CAM criteria and that the UCRRF is not subject to any additional monitoring requirements pursuant to the CAM Regulations. The CAM applicability determination is made on a pollutant-by-pollutant basis. The current Title V Permit does not require the monitoring of any additional pollutants, so the CAM Analysis prepared in February 2008 for the UCRRF is still valid.

If you have any questions or require additional information, please contact Leah Riley of my staff at (732) 499-0101.

Very truly yours,

Alan W. Harleston
Facility Manager
Union County Resource Recovery Facility

c: L. Riley, Covanta Union
P. Earls, Covanta

SUBMISSION CONFIRMATION

Note: Following is a summary of the information contained in your application. If you have completed the submittal, the service will appear in the "My Services - Submitted" section of your My Workspace page. Please check the "Status" column to confirm whether it was successfully transmitted or not. If the status of the service is "Submission Failed - Please Contact NJDEP," please send an e-mail message to PortalComments@dep.nj.gov for assistance, including the Service ID number of the failed submittal in the message. If you have not yet completed the submittal, the service will appear in the "My Services - In Progress" section of the My Workspace page instead, and the "Status" column will indicate the stage of the submittal.

Selected Facility Name:	COVANTA UNION
Selected Facility ID:	41814
Submittal Type:	Operating Permit Application - Initial - (5 Year Renewal)

Click here to access the pdf version of the information submitted in the RADIUS file.

Certification

Certifier:	Leah Riley
Certifier ID:	LRILEY
Challenge/Response Question:	What is your favorite music album?
Challenge/Response Answer:	******
Certification PIN:	******
Date/Time of Certification:	02/13/2018 14:18

For Air Permits:
"I certify under penalty of law that I believe the information provided in this document is true, accurate, and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

For Emission Statements:
"I certify under penalty of law that I believe the information provided in this document is true, accurate, and complete. For those portions of the document that are based on estimates, those estimates are the result of good faith application of sound professional judgment, using techniques, factors, or standards approved by the Department or EPA, or generally accepted in the trade. I am aware that there are significant civil and criminal penalties, including fines or imprisonment or both, for submitting false, inaccurate or incomplete information."

Leah Riley	02/13/2018
Individual With Direct Knowledge	**Date**

Certifier:	Alan Harleston
Certifier ID:	AHARLESTON
Challenge/Response Question:	What is your dream car?
Challenge/Response	******

Answer:
Certification PIN: ******
Date/Time of Certification: 02/13/2018 14:22

For Air Permits:
"I certify under penalty of law that I have personally examined and am familiar with the information submitted 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 the possibility of fine and imprisonment."

For Emission Statements:
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached document and, based on my inquiry of those officials immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I certify that, based on my inquiry of those officials immediately responsible for obtaining the information, I believe that any estimates are the result of good faith application of sound professional judgment, using techniques, factors, or standards approved by the Department or EPA, or generally accepted in the trade. I am aware that there are significant civil and criminal penalties, including fines or imprisonment or both, for submitting false, inaccurate or incomplete information."

Alan Harleston 02/13/2018
Responsible Official **Date**

New Jersey Department of Environmental Protection
Division of Air Quality

Attachment to the RADIUS Air Operating Permit Renewal Application

Submittal Date: 02/13/2018

Facility Name: Union County Resource Recovery Facility

PI#: 41814

This package must be submitted as an attachment to the RADIUS Air Operating Permit Renewal Application. The forms contained in this package must not be altered. Use of any non-standard forms will require resubmittal of the renewal application.

New Jersey Department of Environmental Protection
401 East State Street, 2nd Floor, P.O. Box 420, Mail Code 401-02, Trenton, NJ 08625-0420

Operating Permits Helpline 609-633-8248

Revised Aug 3, 2017

Table of Contents

Applying for an Air Operating Permit Renewal

This summary was prepared to assist you in renewing an operating permit. To continue lawful operation of a facility that has obtained an approved operating permit, a permittee must initiate the renewal of the operating permit by submitting a timely and administratively complete permit application. A complete operating permit renewal application consists of the RADIUS Air Operating Permit Renewal application forms and all forms contained in this package, along with any supporting documents (if needed).

1. **Timely**
   To be considered timely pursuant to N.J.A.C. 7:27-22.30(c), the Department must receive an administratively complete renewal application at least 12 months prior to expiration of the operating permit. The applicant is encouraged to voluntarily submit the renewal application at least 15 months prior to expiration of the operating permit, so that any deficiencies in the application can be addressed prior to the application due date. Only applications, which are administratively complete by the application deadline, will be eligible for coverage by an application shield.

2. **Administratively Complete**
   To be deemed administratively complete pursuant to N.J.A.C. 7:27-22.30(d), an operating permit renewal application must include all information requested in the RADIUS Air Operating Permit Renewal application forms and all forms contained in this package.

3. **Application Shield**
   The Department will grant an application shield when a timely and administratively complete application is received pursuant to N.J.A.C. 7:27-22.30(g). An application shield grants the right to operate the facility upon the expiration of its operating permit. If an operating permit has expired, the conditions of the operating permit remain enforceable until the operating permit is reissued. Unless a facility obtained an application shield, the right to operate the facility terminates upon the expiration of its operating permit pursuant to N.J.A.C. 7:27-22.30(i).

4. **Permit Changes During Renewal Process**
   Minor changes, such as those that would qualify for a seven-day-notice change or administrative amendment, may be made with the renewal pursuant to N.J.A.C. 7:27-22.30(d). Significant changes, such as those qualifying for a minor or significant modification, must be submitted as a separate permit application. The Department at its discretion may include approval of these proposed changes along with the approval of the renewal application.

The forms contained in this attachment must not be altered. Use of any non-standard forms will require resubmittal of the renewal application.

Section 1
Compliance Requirements

A. Compliance Assurance Monitoring (CAM) Applicability Determination

EPA developed 40 CFR 64 (Compliance Assurance Monitoring or "CAM") in order to provide reasonable assurance that facilities comply with emission limitations by monitoring the operation and maintenance of their control devices. In general, CAM applies to emission units that meet all of the following conditions:

1. The emission unit is located at a major source for which a Title V permit is required;
2. The emission unit is subject to an emission limitation or standard for a specific contaminant;
3. The emission unit uses a control device to achieve compliance with that specific contaminant's federally enforceable limit or standard;
4. The emission unit has potential pre-control or post-control emissions (of that specific contaminant) of at least 100% of the major source amount (see 40 CFR 64.2 - "Major facility"); and
5. The emission unit is not otherwise exempt from CAM (for exemptions, see 40 CFR 64.2(b)).

To learn more about the CAM program and for guidance on how to prepare a CAM plan, check EPA's website: https://www.epa.gov/air-emissions-monitoring-knowledge-base/compliance-assurance-monitoring.

After reviewing the information above, check the following boxes as applicable:

☐ **NO**, my facility **does not** have any emission units subject to CAM requirements.

☑ **YES**, my facility **does** have one or more emission units subject to CAM requirements, and

- ☑ A CAM plan is provided with this operating permit renewal application.
- ☐ A CAM plan will be submitted during the technical review of this renewal application.

B. Health Risk Assessment

1. Consistent with N.J.A.C. 7:27-22.3(cc), the Department will review each operating permit renewal application to ensure that emissions of Hazardous Air Pollutants (HAPs) do not pose a public health risk.

2. After receipt of the renewal application, the Department will notify applicants if a Facility-Wide Risk Assessment must be performed. A plot plan and air dispersion modeling protocol will be required in that case.

3. Previous Facility-Wide Risk Assessment, additions and changes in toxicity values or standards, and changes in the air model and/or the facility's location (in an Environmental Justice area, near a sensitive population etc.) will determine the need for health risk assessment.

C. Acid Rain Program

To learn more about Acid Rain Program, check EPA's website: https://www.epa.gov/airmarkets/acid-rain-program.

Check the following boxes as applicable:

☑ **NO**, this facility **is not subject** to the Acid Rain Program, codified at 40 CFR 72.

☐ **YES**, this facility **is subject** to the Acid Rain Program, codified at 40 CFR 72, and

- ☐ There have been no changes affecting my facility's Acid Rain Permit and a renewal application is provided with this operating permit renewal application.
- ☐ There have been changes affecting my facility's Acid Rain Permit and a revised/updated application is provided with this operating permit renewal application.

D. N.J.A.C. 7:27-18 Netting Analysis and General Operating Permit Determination

Air permit applications requesting air emissions increases are required to include a netting analysis to determine if the resulting net emission increase at the facility constitutes a significant net emission increase pursuant to N.J.A.C. 7:27-18.7. These netting analyses must be kept on site or submitted to the Department consistent with the Department's guidance included in the memo listed under "N.J.A.C. 7:27-18 Netting Analysis" and the "General Procedures for General Operating Permits" on the Department's webpage http://www.state.nj.us/dep/aqpp/permitguide.html and http://www.state.nj.us/dep/aqpp/gop.html, respectively. The Department intends to review these analyses at least once in 5 years unless no permit modifications proposing emissions increases were made and no GOPs were obtained during the past 5-year permit term. All netting analyses corresponding to a modification to increase emissions or a GOP must be submitted to the Department. Any netting analyses submitted with a modification application during the 5-year permit term do not need to be submitted again with the permit renewal application.

Check the following boxes as applicable:

☑ **NO**, this facility **has not made** permit changes resulting in emissions increases, including GOPs, since the last permit renewal.

☐ **YES**, this facility **has made** permit changes resulting in emissions increases, including GOPs, since the last permit renewal, and

- ☐ One or more netting analyses, prepared consistent with N.J.A.C. 7:27-18.7 during this permit term, were provided with a modification application during the 5-year permit term.
- ☐ One or more netting analyses, prepared consistent with N.J.A.C. 7:27-18.7 during this permit term, are provided with this permit renewal application.
- ☐ One or more netting analyses, prepared consistent with N.J.A.C. 7:27-18.7 during this permit term, will be submitted during the technical review of this permit renewal application.

Attachment to the RADIUS Air Operating Permit Renewal Application
Section 2
Certification

No additional certification is required when submitting the operating permit renewal application through NJDEP Online: http://www.nj.gov/dep/online/.

Complete the information below when submitting the operating permit renewal application on an electronic storage device, through the mail. Click on the icon on the signature line to add an image of a signature saved on your computer. If you do not have one, print the form out and manually sign on the line.

Facility PI#: 41814

Facility Name: Union County Resource Recovery Facility

Responsible Official:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.

Name: Alan W. Harleston **Signature:** Alan W. Harleston **Date:** 2/13/2018

Individuals with Direct Knowledge:

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.

Name: Leah L. Riley **Signature:** Leah L. Riley **Date:** 2/13/18
Section Being Certified: Renewal document

Name: _____ **Signature:** _____ **Date:** _____
Section Being Certified: _____

Name: _____ **Signature:** _____ **Date:** _____
Section Being Certified: _____

Name: _____ **Signature:** _____ **Date:** _____
Section Being Certified: _____

The forms contained in this attachment must not be altered. Use of any non-standard forms will require resubmittal of the renewal application.

Attachment to the RADIUS Air Operating Permit Renewal Application

Section 3
Summary of 7-Day Notice Changes

Instructions
Complete this form if any 7-day notice changes were submitted to the NJDEP since the approval of the initial operating permit or most recent renewal thereof. With this information, the NJDEP will include the provisions of any eligible 7-day notice changes into the renewed permit.

No.	Date of 7-Day Notice	Brief Description of Change
		NONE

The forms contained in this attachment must not be altered. Use of any non-standard forms will require resubmittal of the renewal application.

Section 4
Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
GR1, E4, E5, E6, E7, E8	12	For equipment required to conduct visual opacity tests: The owner or operator shall demonstrate compliance with NSPS opacity standards specified in 40 CFR 60 [40 CFR 60.11(b)]	Monitored by visual determination annually. Testing shall be conducted using Reference Method 9 for E4, E5 and E6 and Method 22 for E7 and E8.	Manual logging of parameter or storing data in a computer data system annually. Shall maintain records of Method 9 and Method 22 results.	Shall submit a report annually of Method 9 and Method 22 observation data. Note: The UCRRF submits COMS data for opacity in lieu of Method 9 observations in the annual stack test report pursuant to 40 CFR 60.11(e)(5) and UCRRF Title V Permit, GR1, Reference #13.	✓	
GR1, E4, E5, E6	13	Demonstrate compliance with NSPS opacity standards specified in 40 CFR 60 [40 CFR 60.11(b)]	Continuous opacity monitors based on 6-minute block averages.	Record keeping by data acquisition system (DAS)/electronic data storage continuously.	Submit a report: At a schedule agreed upon between the operator and the Administrator. Operator shall submit COMS data in lieu of Method 9 observations. Must notify Administrator in writing 30 days prior to performance test.	✓	

Make additional copies of this form if needed.

Attachment to the RADIUS Air Operating Permit Renewal Application

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						Yes	No
U1 (3 MWCs) OS Sum	1	Stack Testing Summary: Shall conduct stack tests using an approved protocol to demonstrate compliance with required permit limits at the specified frequencies. Must Test at worst-case conditions. Permittee may propose use of CEMS data for NOx, CO and/or SO2.	Annual or 5-year stack testing as specified by the OS Summary Stack Test Conditions or under the applicable operating scenarios.	Record keeping by stack test results upon occurrence of event.	Stack Test: Submit protocol, conduct test and submit results.	✓	
U1 (3 MWCs) OS Sum	2	Shall conduct annual performance tests no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete 5 performance tests in each 5-year calendar period.	Annual stack emission testing	Record keeping by stack test results annually.	Submit protocol, schedule a mutually agreeable test date and submit test results within 60 days after performing the stack test.	✓	

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						Yes	No
U1 (3 MWCs) OS Sum	3	Conduct annual stack testing on each municipal waste combustor (MWC) to demonstrate compliance with the lead and cadmium emission limits.	Stack emission testing annually, based on the average of three runs using EPA Method 29.	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	
U1 (3 MWCs) OS Sum	4	Conduct annual stack testing on each MWC to demonstrate compliance with the volatile organic compounds (VOCs) emission limits.	Stack emission testing annually based on the average of three stack test runs.	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	

Make additional copies of this form if needed.

Attachment to the RADIUS Air Operating Permit Renewal Application

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						Yes	No
U1 (3 MWCs) OS Sum	5	Conduct annual stack testing on each MWC to demonstrate compliance with the hydrogen chloride (HCl) emission limits.	Stack emission testing annually, based on each of three test runs to determine compliance with the 50 ppmv and 16.4 lb/hr emission limits and the average of three runs to determine compliance with the 25 and 29 ppmdv emission limits.	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	
U1 (3 MWCs) OS Sum	6	Conduct annual stack testing on each MWC to demonstrate compliance with the dioxin/furan emission limits. Total PCDD/PCDF must be measured using EPA Reference Method 23 or a test method approved by EPA and the Department.	Stack emission testing annually based on the average of 3 runs. Minimum sample time shall be 4 hours per run, using Method 23. Where all PCDD/PCDF results are <=15 ng/dscm for 2 years, may conduct dioxin/furan test on 1 unit/yr.	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	

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						Yes	No
U1 (3 MWCs) OS Sum	7	Conduct annual stack testing on each MWC to demonstrate compliance with the particulate emission limits by: three test runs for TSP and three test runs for PM-10.	Stack emission testing annually, based on the average of 3 test runs. Compliance with all TSP emission limits shall be determined using EPA Method 5. PM-10 will be determined from the front & back-half using EPA Method 201A/202.	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	
U1 (3 MWCs) OS Sum	8	Conduct annual stack testing on each MWC to demonstrate compliance with the mercury emission limits.	Stack emission testing annually, based on the average of three tests (measured at both the inlet and outlet simultaneously) using EPA Method 29.	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	

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						Yes	No
U1 (3 MWCs) OS Sum	9	Conduct stack tests on each MWC to demonstrate compliance with SO2, NOx, SO3 + H2SO4 (as H2SO4), As, Be, Cr, Ni, and Ammonia emission limits. Tests for Benzo(A)Pyrene emissions must also be conducted.	Stack emission testing prior to permit expiration based on the average of three stack test runs.	Record keeping by stack test results prior to permit expiration. Records maintained on-site in either paper copy or computer readable format.	Certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	
U1 (3 MWCs) OS Sum	10	Conduct stack tests on each MWC to demonstrate compliance with the 1-hour CO and HF emission limits.	Stack emission testing prior to permit expiration, based on each of three stack test runs using EPA Method 10 for CO and EPA Method 13B for HF, or other methods approved by the Department and EPA.	Record keeping by stack test results prior to permit expiration. Records maintained on-site in either paper copy or computer readable format.	Certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	

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Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1 (3 MWCs) OS Sum	18	SO2<=1.2 lb/mmbtu based on a 30-day rolling average. Emission limit applies to each MWC at all times including startup and shutdown.	SO2 continuous emissions monitors collecting 1-hour block averages to be used to calculate a 30-day rolling arithmetic average.	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter. Submit electronically.	✓	
U1 (3 MWCs) OS Sum	19	Particulates emissions <=0.1 gr/dscf @ 12% CO2 (including ash, excluding contribution of auxiliary fuel) for each combustor. Applies at all times including startup and shutdown.	Annual stack test based on average of three runs. (See Reference 7 above)	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	

Make additional copies of this form if needed.

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Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1 (3 MWCs) OS Sum	28	NOx Limit of 150 ppmvd @ 7% O2 based on a calendar day average for each MWC.	NOx continuous emissions monitors using 1-hour block averages to calculate a daily arithmetic average.	Data acquisition system (DAS)/electronic data storage continuously and calculating the average each calendar day.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter. Submit electronically.	✓	
U1 (3 MWCs) OS Sum	29	Opacity limit of 10% for 6-minute block average for each MWC while firing natural gas or MSW. Applies all times including startup and shutdown.	Continuous opacity monitors (COMS) based on 6-minute block average, using EPA Method 9, or an equivalent method approved by the EPA and the Department (COMS data in lieu of Method 9).	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter. Submit electronically.	✓	

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Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1 (3 MWCs) OS Sum	55	For each unit CEMS and COMS shall be in operation and accurately measure and record: opacity, CO, O2 (stack and economizer), NOX, NH3, HCl (when required), SO2 (inlet and outlet). Must comply with applicable requirements in 40 CFR 60, Appendices B & F.	None.	Data acquisition system (DAS)/electronic data storage continuously. CEMS/COMS records must be maintained in a manner acceptable to the Regional Enforcement Officer.	None.	✓	
U1 (3 MWCs) OS Sum	61	Upon startup of a combustor, no solid waste may be introduced into the combustor unless the average roof temperature is at least 831 degrees F.	Monitored by temperature instrument continuously.	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter. Submit electronically.	✓	

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Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1 (3 MWCs) OS Sum	62	Within 1 hour after waste has been introduced into the MWC, the average roof temperature shall be at least 1120 degrees F when steam production = 125,223 lb/hr. When steam production is not 125,223 lb/hr Min Roof Temp shall = 727.5+[392 x actual pph steam/125,223 pph]	Monitored by temperature instrument and steam flow monitor continuously.	Data acquisition system (DAS)/electronic data storage continuously.	None	✓	
U1 (3 MWCs) OS Sum	63	During combustion of waste, aux burners shall be placed into operation within 30 min if the avg roof temp drops below 1220 deg F when steam prod = 125,223 lb/hr. When steam prod is not 125,223 Min Roof Temp shall = 827.5+{392 x actual pph steam/125,223pph]	Monitored by temperature instrument and steam flow monitor continuously.	Data acquisition system (DAS)/electronic data storage continuously.	None	✓	

Make additional copies of this form if needed.

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						Yes	No
U1 (3 MWCs) OS Sum	66	Baghouse inlet temperature shall not exceed 30 degrees F above the maximum 4-hour block average temperature during the most recent dioxin/furan compliance test.	Monitored by temperature instrument continuously based on a 4-hour block average.	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter. Submit electronically.	✓	
U1 (3 MWCs) OS Sum	70	Carbon shall be fed to the MWCs at or above the optimized feed rate. Carbon feed augur shall be operational when waste is being processed. The time between any carbon feed hopper cycle shall not exceed 3.5 hours.	Monitored by bin counts daily when any combustor is operating.	Manual logging of parameter daily in permanently bound notebook or readily available computer files.	Not Applicable.	✓	

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Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1 (3 MWCs) OS Sum	71-73	Mercury emission limit of 28 ug/dscm @ 7% O2 or 95% reduction.	Annual stack testing using EPA Method 29.	Stack test results annually. Records maintained on-site in either paper copy or computer readable format.	Annual certified stack test report submitted to the Bureau of Technical Services within 60 days after performing test.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	1	Particulate matter limit of 0.01 gr/dscf @ 7% O2 for each MWC, except during period of startup and shutdown.	Annual stack test based on average of three test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Attachment to the RADIUS Air Operating Permit Renewal Application

Section 4
Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	2	Particulate emissions limit of 0.1 gr/dscf @ 12% CO2 for each MWC, except during period of startup and shutdown.	Annual stack test, based on any 60-minute period.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	3	TSP limit of 4.2 lb/hr from each MWC except during period of startup and shutdown.	Annual stack test, based on the average of three 1-hour test runs conducted successively.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Section 4
Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	4	PM-10 limit of 0.01 gr/dscf @ 7% O2 from each MWC, except during periods of startup and shutdown.	Annual stack test based on the average of three stack test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	5	SO2 limit of 50 ppm @7% O2 or 80% reduction from each MWC based on a 3-hour rolling average. SO2 3-hour rolling average shall never exceed 100 ppm at 7% O2. Applies at all times except during startup and shutdown.	SO2 continuous emissions monitors, based on a 3-hour rolling average calculated from 1-hour block averages. (2 hours of data are required for a valid 3-hour averaging period.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter. Submit electronically.	✓	

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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	6	SO2 limit for each MWC of 49 lb/hr except during periods of startup and shutdown.	Stack emission testing prior to permit expiration, based on the average of three stack test runs.	Annual stack test results.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	7	SO2 limit for each MWC of 30 ppmvd @ 7% O2 or 80% reduction for a 24-hour geometric average, whichever is less stringent.	SO2 continuous emissions monitors based on a 24-hour geometric average (18 hours of data are required to calculate a valid 24-hour average), or based on a test method approved by EPA and the Department.	Data acquisition system (DAS)/electronic data storage continuously and stack test results upon occurrence.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter. Submit electronically. Stack test results submitted to BTS within 60 days after testing.	✓	

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Section 4
Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	8	HCl limit for each MWC of 50 ppmvd @ 7% O2 or 90% reduction, for any 1-hour period, except during periods of startup and shutdown. (CEMS for HCl required if 50 ppmvd limit is exceeded)	Stack emission testing annually based on 1-hour block average.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	9	HCl limit for each MWC of 25 ppmvd @ 7% O2 or 95% reduction, whichever is less stringent.	Stack emission testing annually based on the average of three stack test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Section 4
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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	10	Hydrogen chloride limit of 16.4 lb/hr for each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration based on each of three stack test runs. Note: In accordance with U1, OS Summary, Ref. #5, HCl testing is being conducted annually and compliance with this limit has been demonstrated on an annual basis.	Stack testing results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	11	Hydrogen Fluoride limit of 0.63 lb/hr from each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration based on each of three stack test runs.	Stack testing results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	

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Section 4
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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	12	CO limit of 86 lb/hr from each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration based on each of three stack test runs.	Stack testing results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	13	CO limit of 100 ppmvd @ 7% O2 for each MWC, except during periods of startup and shutdown.	CO continuous emissions monitors, based on a 4-hour rolling average (rolling on the hour) calculated from 1-hour block averages. (Minimum of 3 hours of valid data is required to calculate a valid 4-hour average.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	

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Section 4
Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	15	NOx limit of 80 lb/hr for each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration based on the average of three 1-hour tests conducted successively. Three stack tests shall be conducted on the same unit without the ammonia injection system operating; controlled and uncontrolled NOx test will be conducted on same day.	Stack test results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	16	NOx limit of 225 ppmvd @ 7% O2 for 3-hour rolling average for each MWC, except during periods of startup and shutdown.	NOx continuous emissions monitors based on 3-hour rolling average (rolling on the hour) calculated from 1-hour block averages. (Minimum of 2 hours of valid data are required for a valid 3-hour average.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	

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Section 4
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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	17	NOx limit of 150 ppmvd @ 7% O2 for a calendar day for each MWC, except during periods of startup and shutdown.	NOx continuous emissions monitors based on 24-hour block (calendar day). (Minimum of 18 hours are required to calculate a valid 24-hour average.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	18	SO3 + H2SO4 (as H2SO4) limit of 4.8 lb/hr for each MWC, except for periods of startup and shutdown.	Stack testing prior to permit expiration based on the average of three test runs.	Stack test results upon occurrence of event.	Submit protocol, conduct test, submit results.	✓	

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Section 4
Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	19	Lead limit of 0.12 lb/hr from each MWC, except during periods of startup and shutdown	Stack emission testing annually based on the average of three runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	20	Mercury limits of 0.076 lb/hr from each unit, except during periods of startup and shutdown. And Hg limit of 28 ug/dscm @ 7% O2 or 95% reduction.	Stack emission testing annually based on the average of three test runs, or by a method approved by the EPA and the Department.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Section 4
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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	21	Arsenic limit of 0.0019 lb/hr for each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration based on the average of three stack test runs.	Stack test results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	22	Beryllium limit of 0.000045 lb/hr for each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration based on the average of three stack test runs.	Stack test results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	

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Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	23	Cadmium limit of 0.0075 lb/hr (0.04 mg/dscm @ 7% O2) for each MWC, except during periods of startup and shutdown.	Stack emission testing annually based on the average of three stack test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	24	Chromium limit of 0.045 lb/hr for each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration based on the average of three stack test runs.	Stack test results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	

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Section 4
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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	25	Nickel limit of 0.06 lb/hr for each MWC, except during periods of startup and shutdown	Stack emission testing prior to permit expiration based on the average of three stack test runs.	Stack test results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	26	VOC (total) limit of 1.8 lb/hr as methane from each MWC, except for periods of startup and shutdown.	Stack emission testing annually based on the average of three stack test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Section 4
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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	27	VOC (total) limit of 15 ppmvd @ 7% O2 for any 1-hour period average concentration as methane for each MWC, except during periods of startup and shutdown.	Stack emission testing annually based on each of three test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	28	Ammonia limit of 6.5 lb/hr for each MWC, except during periods of startup and shutdown	Stack emission testing prior to permit expiration date based on the average of three stack test runs.	Stack test results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	

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Section 4
Summary of the results from Stack Testing and Monitoring

Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	30	Ammonia slip limit of 50 ppm @ 7% O2 for a 3-hour rolling average for each MWC, except during periods of startup and shutdown.	Stack emission testing prior to permit expiration date based on the average of three stack test runs.	Stack test results upon occurrence of event.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	31	PM limit of 0.015 gr/dscf @ 7% O2 in the Stack gas of each MWC, except during periods of startup and shutdown.	Stack emission testing annually based on the average of three stack test runs conducted successively.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	32	Opacity limit of 10% for 6-minute block average for each MWC while firing natural gas or MSW.	Continuous opacity monitors based on 6-minute block averages.	Data acquisition system (DAS)/electronic data storage continuously.	None.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	33	Total PCDD/PCDF limit of 30 ng/dscm @ 7% O2 for each MWC, except during periods of startup and shutdown.	Stack emission testing annually based on the average of three stack test runs conducted successively.	Stack test results annually	Submit protocol, conduct test and submit results.	✓	

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Section 4
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Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	34	CO limit of 100 ppmvd @ 7% O2 for a 4-hour rolling average (rolling on the hour) for each MWC, except during periods of startup and shutdown.	CO continuous emissions monitors based on 4-hour rolling averages calculated using 1-hour block averages and rolling on the hour. (Minimum of 3 hours of data are required to calculate a valid 4-hour block average.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	35	110% steam flow limit based on the highest 4-hour block average achieved during the most recent dioxin/furan test.	Continuous steam flow meter based on 4-hour block averages.	Data acquisition system (DAS)/electronic data storage continuously.	None	✓	

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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	36	Baghouse inlet temperature limit of 30 degrees F above the highest 4-hour block average achieved during the most recent dioxin/furan test.	Monitored by temperature instrument continuously, based on a 4-hour block average.	Data acquisition system (DAS)/electronic data storage continuously.	None.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	40	Particulate emissions limit of 25 mg/dscm, except during periods of startup, shutdown and malfunction.	Annual stack emissions testing.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	41	Opacity limit of 10% for a 6-minute block average for each MWC, except during periods of startup, shutdown and malfunction.	Continuous opacity monitors, based on 6-minute block averages.	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	42	Lead limit of 0.4 mg/dscm @ 7% O2 for each MWC, except during periods of startup, shutdown and malfunction.	Annual stack emission testing based on the average of three stack test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	

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Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	43	Cadmium limit of 0.035 mg/dscm @ 7% O2 for each MWC, except for periods of startup, shutdown and malfunction.	Annual stack testing based on the average of three stack test runs.	Annual stack test results.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	44	Mercury limit of 0.05 mg/dscm @ 7% O2 or 85% reduction (whichever is less stringent) for each MWC, except during periods of startup, shutdown and malfunction.	Annual stack emissions testing based on the average of three stack test runs.	Annual stack test results.	Submit protocol, conduct test and submit results.	✓	

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Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	45	SO2 limit of 29 ppmvd @ 7% O2 or 75% reduction, whichever is less stringent, based on a 24-hour geometric average,	SO2 continuous emissions monitors based on a 24-hour geometric average. (Minimum of 18 valid hours is required to calculate a valid 24-hour geometric average.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	46	HCl limit of 29 ppmvd @ 7% O2 or 95% reduction (whichever is less stringent) for each MWC, except during periods of startup, shutdown and malfunctiom.	Stack testing annually based on the average of three stack test runs.	Annual stack test results.	Submit protocol, conduct test and submit results.	✓	

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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	47	Total PCDD/PCDF limit of 30 ng/dscm @ 7% O2 for each MWC, except during periods of startup, shutdown and malfunction.	Stack emission testing annually, based on the average of three test runs.	Stack test results annually.	Submit protocol, conduct test and submit results.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	48	NOx limit of 205 ppmdv corrected to 7% O2 for a 24-hour daily arithmetic average for each MWC, except for periods of startup, shutdown and malfunction.	NOx continuous emissions monitors based on a 24-hour daily arithmetic average calculated from 1-hour block averages. (Minimum of 18 valid hours required to calculate a valid 24-hour arithmetic average.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	

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Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	49	CO limit of 100 ppmvd @ 7% O2 based on a 4-hour block average for each MWC, except during periods of startup, shutdown and malfunction,	CO continuous emissions monitors based on 4-hour block averages calculated from 1-hour block averages. (Minimum of 3 valid hours of data to calculate a valid 4-hour block average.)	Data acquisition system (DAS)/electronic data storage continuously.	Quarterly Excess Emissions and Monitoring System Performance Report (EEMPR) due April 30, July 30, October 30 and January 30 for the preceding quarter.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	50	110% steam flow limit based on highest 4-hour block average demonstrated during most recent dioxin/furan test.	Continuous steam flow meter based on a 4-hour block average.	Data acquisition system (DAS)/electronic data storage continuously.	None.	✓	

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Instructions
Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	51	Baghouse Inlet temperature limit of 30 degrees F above the highest 4-hour block average achieved during the most recent dioxin/furan test.	Monitored by temperature instrument continuously based on 4-hour block averages calculated from 1-hour block averages.	Data acquisition system (DAS)/electronic data storage continuously.	None.	✓	
U1, OS1,3,5 (3 MWCs burning MSW)	52	Fugitive ash emissions limit of 5% of the observation period (i.e., 9 minutes per 3-hour period).	Visual determination annually based on a series of three 1-hour observations using EPA Reference Method 22.	Annual Method 22 results and supporting calculations.	None.	✓	

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						Yes	No
U1, OS1,3,5 (3 MWCs burning MSW)	53	The carbon injection system operating parameters that are the primary indicators of carbon mass feed rate must equal or exceed the level established during the performance tests for mercury and dioxin/furan emissions.	Monitored by carbon mass feed rate as required pursuant to 40 CFR 60.58b(m)(2).	Data acquisition system (DAS)/electronic data storage continuously.	None	✓	
U4, OS Sum (Residue Sys)	5	Fugitive ash emissions limit of 5% of the observation period (i.e., 9 minutes per 3-hour period).	Visual determination annually based on a series of three 1-hour observations using EPA Reference Method 22.	Annual Method 22 results and supporting calculations.	Submit a semi-annual report on January 31 and July 31 with observation results, and any corrective actions taken for exceedences, if applicable.	✓	

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Complete this form if the permit required stack emissions testing, continuous emissions monitors or continuous opacity monitors.

Subject Item U / BP	OS / Ref #	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	In Compliance?	
						Yes	No
		NOTE: SEE APPENDIX A to this Attachment for a Summary of Stack Test Results and a Summary of Excess Emissions Events (including those due to Startup, Shutdown and Malfunction) during the Period from January 1, 2013-December 31, 2017.				✓	
						✓	

Make additional copies of this form if needed.

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Section 5
Compliance Status

Instructions
Please read these instructions prior to completing the following form.

1. Subject Item: List each subject item from Section D, Compliance Plan and Inventories, of the operating permit in this column. Subject items include Facility (FC), Group (GR), Non-Source Fugitive Emissions (FG), Insignificant Source (IS), Batch Process (BP), and Emission Unit (U). (Operating Scenario and Reference Numbers are required only for Non-Compliance permit requirements. See item 2 below).

2. Compliance Status: Provide compliance status for each subject item in this column. If all the permit requirements for a subject item (for example an emission unit) are in compliance, write "In Compliance". If one or more permit requirements are out of compliance for a particular subject item, provide the Operating Scenario and Reference Number for each out of compliance requirement in the first column and write "Non-Compliance" in the 2nd column. (Reference Numbers for each applicable requirement are located in the first column of Facility Specific Requirements, Section D of the permit).

3. Method Used to Determine Compliance: Describe how compliance was determined in this column. If all the permit requirements for a subject item (for example an emission unit) are in compliance, write "Consistent with all methods listed in monitoring and recordkeeping permit requirements". If one or more permit requirements are out of compliance for a particular subject item, provide the Operating Scenario and Reference Number for each out of compliance requirement in the first column and provide specific method used to determine compliance in the 3rd column.

4. Compliance Schedule: insert a "No" if there are no compliance schedules included in this application to address non-compliance issues for which "Non-Compliance" was inserted in the 2nd column. Insert a "Yes" if a compliance schedule is included in this renewal application to address non-compliance issues in the approved permit or non-compliance issues disclosed in this application.

Attachment to the RADIUS Air Operating Permit Renewal Application

Section 5
Compliance Status

Instructions
Read the instructions on the previous page before completing this form.

Subject Item OS / Ref #	Compliance Status (In Compliance Non-Compliance)	Method Used to Determine Compliance	Is a Compliance Schedule Attached? (Yes/No)
Subject Item FC *OS / Ref #*	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item FG1 *OS / Ref #*	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item IS1 *OS / Ref #*	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No

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Section 5
Compliance Status

Instructions
Read the instructions on the previous page before completing this form.

Subject Item OS / Ref #	Compliance Status (In Compliance Non-Compliance)	Method Used to Determine Compliance	Is a Compliance Schedule Attached? (Yes/No)
Subject Item GR1 *OS / Ref #*	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item U1 *OS / Ref #* OS Summary	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements. NOTE: Intermittent compliance during the permit term with References 29 and 70 See Appendix A for Summary of Compliance Deviations from 2013-2017	No
Subject Item U1 *OS / Ref #* OS1/3/5	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements. Note: Intermittent compliance during the permit term with References 5, 13, 16, 32, 34, 41, 49 and 53. See Appendix A for Summary of Compliance Deviations from 2013-2017	No

Make additional copies of this form if needed.

Attachment to the RADIUS Air Operating Permit Renewal Application

Section 5
Compliance Status

Instructions
Read the instructions on the previous page before completing this form.

Subject Item OS / Ref #	Compliance Status (In Compliance Non-Compliance)	Method Used to Determine Compliance	Is a Compliance Schedule Attached? (Yes/No)
Subject Item U1 *OS / Ref #* OS 2/4/6	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item U2 *OS / Ref #* OS Summary	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item U3 *OS / Ref #* OS Summary	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No

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Attachment to the RADIUS Air Operating Permit Renewal Application

Section 5
Compliance Status

Instructions
Read the instructions on the previous page before completing this form.

Subject Item OS / Ref #	Compliance Status (In Compliance Non-Compliance)	Method Used to Determine Compliance	Is a Compliance Schedule Attached? (Yes/No)
Subject Item U4 *OS / Ref #* OS Summary	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item U4 *OS / Ref #* OS1-OS10	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item U5 *OS / Ref #* OS Summary	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No

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Attachment to the RADIUS Air Operating Permit Renewal Application

Section 5
Compliance Status

Instructions
Read the instructions on the previous page before completing this form.

Subject Item OS / Ref #	Compliance Status (In Compliance Non-Compliance)	Method Used to Determine Compliance	Is a Compliance Schedule Attached? (Yes/No)
Subject Item U100 *OS / Ref #* OS Summary	In Compliance	Consistent with all methods listed in monitoring and recordkeeping requirements.	No
Subject Item *OS / Ref #*	In Compliance		No
Subject Item *OS / Ref #*	In Compliance		No

Make additional copies of this form if needed.

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Attachment to the RADIUS Air Operating Permit Renewal Application

Section 5
Compliance Schedules

Instructions
Complete this form if the permit included any compliance schedules (Section D of the permit) or if there are any non-compliance issues at the time of completing this application form. Check the appropriate box to indicate whether the compliance schedule has been updated, removed, or added.

Subject Item / OS / Ref #	Requirement	Compliance Schedule	Compliance Schedule		
			Updated	Removed	Added
Subject Item	NONE				
OS / Ref #					
Subject Item					
OS / Ref #					
Subject Item					
OS / Ref #					

Make additional copies of this form if needed.

The forms contained in this attachment must not be altered. Use of any non-standard forms will require resubmittal of the renewal application.

Appendix A

Union County Resource Recovery Facility
Summary of Stack Test Results, CEMS/COMS and Other Monitoring Results

Overview

The information in this Appendix is provided to support and augment information provided in Section 4, Summary of the Results from Stack Testing and Monitoring, and Section 5, Compliance Status, of the *Attachment to the Radius Air Operating Permit Renewal Application* with a summary of stack emissions test results, a summary of excess emissions events and other instances of intermittent compliance with a Title V Permit conditions, if applicable. Appendix A is included to provide a comprehensive summary of the facility's compliance during the permit term.

The summary of stack test results includes annual stack test results for the years 2013 – 2017. The constituents/parameters that are measured every year pursuant to the annual testing requirements are particulate matter, PM-10, opacity, hydrogen chloride, lead, cadmium, mercury, oxygen/carbon dioxide, dioxins/furans, total hydrocarbons and fugitive ash emissions. Every five years the UCRRF is required to conduct testing for additional constituents (in addition to those required on an annual basis). This comprehensive 5-year testing was most recently conducted during 2015. The results for the stack tests were provided to NJDEP within 60 days of completion of testing in the annual stack test reports. All stack test results demonstrated compliance with the applicable permit limits.

The summary of CEMS/COMS monitoring events (including those that occurred during startup, shutdown and malfunction) provided in Appendix A are for the period of January 1, 2013 through December 31, 2017. These events were reported to NJDEP in a timely manner in the appropriate notification letters, quarterly reports, semi-annual and annual reports, as applicable.

Following the CEMS/COMS monitoring events summary in this appendix, is a summary of other deviations from permit requirements that occurred during the period from January 1, 2013 through December 31, 2017, as well as identification of the specific permit conditions with which compliance was intermittent during the 5-year permit term.

2013 Stack Test Results Summary for the UCRRF*

Parameter/Units	Unit 1	Unit 2	Unit 3	Limit
SDA Inlet				
Hydrogen Chloride (HCl) ppm @ 7% O_2	504	669	786	NA
Mercury (Hg) lb/hr	0.0104	0.0323	0.00924	NA
Mercury (Hg) mg/dscm @ 7% O_2	0.0512	0.159	0.0463	NA
Fabric Filter Baghouse Outlet				
Filterable Particulate Matter (PM) gr/dscf @ 7% O_2	0.000751	0.000470	0.00116	0.010
Total Particulate Matter (PM) gr/dscf @ 12% CO_2	0.00679	0.00892	0.00500	0.1
Total PM10 – gr/dscf @ 7% O_2	0.00249	0.00144	0.00197	0.01
Hydrogen Chloride (HCl) ppm @ 7% O_2	2.08	4.48	7.53	25/29
Total Hydrocarbons (THC) ppm @ 7% O_2	2.84	3.44	3.22	15
Total Dioxin/Furan (PCDD/PCDF) ng/dscm @ 7% O_2	NA	0.755	NA	30
Mercury (Hg) ug/dscm @ 7% O_2	<0.449	0.493	<1.05	28
Cadmium (Cd) mg/dscm @ 7% O_2	<0.000383	<0.000279	<0.000784	0.035
Lead (Pb) mg/dscm @ 7% O_2	0.00480	0.00199	0.0194	0.400
Particulate (PM) - Filterable mg/dscm @ 7% O_2	1.72	1.08	2.65	25
Mercury (Hg) mg/dscm @ 7% O_2	<0.000449	0.000493	<0.00105	0.050
Particulate Matter (PM) lb/hr	3.3	4.2	2.7	4.2
Hydrogen Chloride (HCl) lb/hr	0.648	1.39	2.54	16.4
Mercury (Hg) lb/hr	<0.0000928	0.000103	<0.000235	0.076
Cadmium (Cd) lb/hr	<0.0000788	<0.0000589	<0.000175	7.5E-03
Lead (Pb) lb/hr	<0.000986	0.000420	0.00434	0.12
Total Hydrocarbons (THC) lb/hr	0.395	0.477	0.470	1.8
Removal Efficiency				
Hydrogen Chloride (HCl) % (based on ppm @ 7% O_2)	99.6	99.4	99.1	≥95
Mercury (Hg) % (based on mg/dscm @ 7% O_2)	>99.0	99.4	>97.7	≥95
Ash Handling System				
Fugitive Emissions, Min.	0	0	0	9
Visible Emissions				
Opacity %	1	1	0	10

* 2013 Stack Testing was conducted March 18-22, 2013.

2014 Stack Test Results Summary for the UCRRF*

Parameter/Units	Unit 1	Unit 2	Unit 3	Limit
SDA Inlet				
Hydrogen Chloride (HCl) ppm @ 7% O_2	438	414	552	NA
Mercury (Hg) lb/hr	0.0180	0.00959	0.00936	NA
Mercury (Hg) mg/dscm @ 7% O_2	0.0922	0.0487	0.0464	NA
Fabric Filter Baghouse Outlet				
Filterable Particulate Matter (PM) gr/dscf @ 7% O_2	0.000585	0.000474	0.000469	0.010
Total Particulate Matter (PM) gr/dscf @ 12% CO_2	0.00355	0.00440	0.00273	0.1
Total PM10 – gr/dscf @ 7% O_2	0.00186	0.00140	0.00177	0.01
Hydrogen Chloride (HCl) ppm @ 7% O_2	2.16	3.68	5.40	25/29
Total Hydrocarbons (THC) ppm @ 7% O_2	0.115	0.359	0.123	15
Total Dioxin/Furan (PCDD/PCDF) ng/dscm @ 7% O_2	NA	NA	0.557	30
Mercury (Hg) ug/dscm @ 7% O_2	<0.495	<0.505	<0.458	28
Cadmium (Cd) mg/dscm @ 7% O_2	0.000410	0.000201	0.000360	0.035
Lead (Pb) mg/dscm @ 7% O_2	0.00514	0.00139	0.00328	0.400
Particulate (PM) - Filterable mg/dscm @ 7% O_2	1.34	1.08	1.07	25
Mercury (Hg) mg/dscm @ 7% O_2	<0.000495	<0.000505	<0.000458	0.050
Particulate Matter (PM) lb/hr	1.67	2.04	1.32	4.2
Hydrogen Chloride (HCl) lb/hr	0.674	1.15	1.83	16.4
Mercury (Hg) lb/hr	<1.03E-04	<1.04E-04	<1.03E-04	0.076
Cadmium (Cd) lb/hr	8.52E-05	4.13E-05	8.12E-05	7.5E-03
Lead (Pb) lb/hr	1.07E-03	2.87E-04	7.40E-04	0.12
Total Hydrocarbons (THC) lb/hr	0.0157	0.0468	0.0187	1.8
Removal Efficiency				
Hydrogen Chloride (HCl) % (based on ppm @ 7% O_2)	99.5	99.1	99.0	≥95
Mercury (Hg) % (based on mg/dscm @ 7% O_2)	>99.5	>98.9	>98.9	≥95
Ash Handling System				
Fugitive Emissions, Min.	0	0	0	9
Visible Emissions				
Opacity %	1	0	1	10

* 2014 Stack Testing was conducted February 24-27 and March 11-12, 2014.

2015 Stack Test Results Summary for the UCRRF*

Parameter/Units	Unit 1	Unit 2	Unit 3	Limit
SDA Inlet				
Hydrogen Chloride (HCl) ppm @ 7% O_2	642	512	541	NA
Mercury (Hg) lb/hr	0.00858	0.0109	0.0562	NA
Mercury (Hg) mg/dscm @ 7% O_2	0.0433	0.0581	0.279	NA
Carbon Monoxide (CO) lb/hr(1)	6.19	3.46	3.12	86
Carbon Monoxide (CO) ppm @ 7% O_2	27.4	15.7	13.7	100
Sulfur Dioxide (SO_2) ppm @ 7% O_2	73.6	46.8	42.1	NA
Fabric Filter Baghouse Outlet				
Filterable Particulate Matter (PM) gr/dscf @ 7% O_2	0.000875	0.000878	0.00179	0.010
Total PM10 gr/dscf @ 7% O_2	0.00180	0.00169	0.00185	0.01
Total Particulate Matter (PM) gr/dscf @ 12% CO_2	0.000906	0.000893	0.00182	0.1
Hydrogen Chloride (HCl) ppm @ 7% O_2	2.33	2.08	1.37	25/29
Ammonia (NH_3) ppm@ 7% O_2	0.907	0.883	<0.525	50
Sulfuric Acid Mist (H_2SO_4) ppm @ 7% O_2	0.104	0.093	0.138	NA
Total Fluorides (HF) ppm @ 7% O_2	<0.217	<0.210	<0.188	NA
Total Hydrocarbons (THC) ppm @ 7% O_2	0.845	0.199	0.0622	15
Sulfur Dioxide (SO_2) ppm @ 7% O_2 (3)	1.30	0.656	0.297	29
Nitrogen Oxides (NO_X) ppm @ 7% O_2 (6)	111	124	108	180/205
Total Dioxin/Furan (PCDD/PCDF) ng/dscm @ 7% O_2	0.773	NA	NA	30
Benzo, a-pyrene, ng/dscm @ 7% O_2	0.677	0.818	0.696	NA
Mercury (Hg) ug/dscm @ 7% O_2	0.465	0.474	0.499	28
Cadmium (Cd) mg/dscm @ 7% O_2	<0.000270	<0.000424	<0.000252	0.035
Lead (Pb) mg/dscm @ 7% O_2	0.00379	0.00542	0.00352	0.40
Particulate (PM) - Filterable, mg/dscm @ 7% O_2	2.00	2.01	4.11	25
Mercury (Hg) mg/dscm @ 7% O_2	0.000465	0.000474	0.000499	0.050
Total Particulate Matter (PM) lb/hr	0.390	0.419	0.850	4.2
Hydrogen Chloride (HCl) lb/hr	0.685	0.610	0.431	16.4
Ammonia (NH_3) lb/hr	0.121	0.118	<0.0719	6.5
Mercury (Hg) lb/hr	0.0000913	0.0000924	0.000103	0.076
Cadmium (Cd) lb/hr	<0.000053	<0.000083	<0.000053	7.5E-03
Lead (Pb) lb/hr	0.000748	0.00106	0.000728	0.12
Total Hydrocarbons (THC) lb/hr	0.113	0.026	0.0094	1.8
Total Flourides (HF) lb/hr	<0.0350	<0.0347	<0.0339	0.63
Sulfuric Acid Mist (H_2SO_4) lb/hr	0.0830	0.0780	0.119	4.8
Sulfur Dioxide (SO_2) ppm @ 7% O_2	0.696	0.343	0.174	49
Nitrogen Oxides (NO_X) lb/hr	42.6	46.8	45.9	80
Arsenic (As) lb/hr	<0.000039	<0.000050	<0.000046	0.0019
Beryllium (Be) lb/hr	<0.000003	<0.000003	<0.000004	0.000045
Chromium (Cr) lb/hr	0.000259	0.00202	0.000561	0.045
Nickel (Ni) lb/hr	<0.000217	0.000703	0.000778	0.06
Removal Efficiency				
Hydrogen Chloride (HCl) %	99.6	99.6	99.7	≥95
Mercury (Hg) %	98.9	99.2	99.4	≥95
Sulfur Dioxide (SO_2) %	98.4	98.6	99.2	≥ 75/80
Ash Handling System				
Fugitive Emissions, Min.	0	0	0	9
Visible Emissions				
Opacity %	1	0	2	10

* 2015 Stack Testing was conducted February 17-27, 2015. Includes additional constituents required to be tested every 5 years.

2016 Stack Test Results Summary for the UCRRF*

Parameter/Units	Unit 1	Unit 2	Unit 3	Limit
SDA Inlet				
Hydrogen Chloride (HCl) ppm @ 7% O_2	529	531	516	NA
Mercury (Hg) lb/hr	0.00492	0.0118	0.0108	NA
Mercury (Hg) mg/dscm @ 7% O_2	0.0256	0.0606	0.0578	NA
Fabric Filter Baghouse Outlet				
Filterable Particulate Matter (PM) gr/dscf @ 7% O_2	0.000582	0.000766	0.000714	0.010
Total Particulate Matter (PM) gr/dscf @ 12% CO_2	0.000594	0.000798	0.000743	0.1
Total PM10 – gr/dscf @ 7% O_2	0.00325	0.00404	0.00252	0.01
Hydrogen Chloride (HCl) ppm @ 7% O_2	1.34	3.66	2.20	25/29
Total Hydrocarbons (THC) ppm @ 7% O_2	0.722	0.407	0.546	15
Total Dioxin/Furan (PCDD/PCDF) ng/dscm @ 7% O_2	NA	0.805	NA	30
Mercury (Hg) ug/dscm @ 7% O_2	<0.433	<0.405	<0.442	28
Cadmium (Cd) mg/dscm @ 7% O_2	<0.000457	<0.000373	<0.000230	0.035
Lead (Pb) mg/dscm @ 7% O_2	0.00598	0.00651	0.00258	0.400
Particulate (PM) - Filterable mg/dscm @ 7% O_2	1.33	1.75	1.63	25
Mercury (Hg) mg/dscm @ 7% O_2	<0.000433	<0.000405	<0.000442	0.050
Particulate Matter (PM) lb/hr	0.307	0.365	0.337	4.2
Hydrogen Chloride (HCl) lb/hr	0.430	1.14	0.747	16.4
Mercury (Hg) lb/hr	<0.0000908	<0.0000827	<0.0000991	0.076
Cadmium (Cd) lb/hr	<0.0000955	<0.0000761	<0.0000512	7.5E-03
Lead (Pb) lb/hr	0.00126	0.00133	0.000576	0.12
Total Hydrocarbons (THC) lb/hr	0.0983	0.0521	0.0824	1.8
Removal Efficiency				
Hydrogen Chloride (HCl) % (based on ppm @ 7% O_2)	99.7	99.3	99.6	≥95
Mercury (Hg) % (based on mg/dscm @ 7% O_2)	>98.3	>99.2	>99.1	≥95
Ash Handling System				
Fugitive Emissions, Min.	0	0	0	9
Visible Emissions				
Opacity %	3	1	2	10

* 2016 Stack Testing was conducted March 7-10, 2016.

2017 Stack Test Results Summary for the UCRRF*

Parameter/Units	Unit 1	Unit 2	Unit 3	Limit
SDA Inlet				
Hydrogen Chloride (HCl) ppm @ 7% O_2	538	513	528	NA
Mercury (Hg) lb/hr	0.0236	0.0120	0.0138	NA
Mercury (Hg) mg/dscm @ 7% O_2	0.108	0.0583	0.0638	NA
Fabric Filter Baghouse Outlet				
Filterable Particulate Matter (PM) gr/dscf @ 7% O_2	0.000398	0.000796	0.000451	0.010
Total Particulate Matter (PM) gr/dscf @ 12% CO_2	0.00196	0.00244	0.00143	0.1
Total PM10 – gr/dscf @ 7% O_2	0.00192	0.00304	0.00147	0.01
Hydrogen Chloride (HCl) ppm @ 7% O_2	2.29	1.27	1.23	25/29
Total Hydrocarbons (THC) ppm @ 7% O_2	0.262	0.267	0.741	15
Total Dioxin/Furan (PCDD/PCDF) ng/dscm @ 7% O_2	NA	NA	0.672	30
Mercury (Hg) ug/dscm @ 7% O_2	<0.439	<0.437	<0.388	28
Cadmium (Cd) mg/dscm @ 7% O_2	<0.000163	<0.000284	<0.000195	0.035
Lead (Pb) mg/dscm @ 7% O_2	0.00126	<0.00298	0.00212	0.400
Particulate (PM) - Filterable mg/dscm @ 7% O_2	0.910	1.82	1.03	25
Mercury (Hg) mg/dscm @ 7% O_2	<0.000439	<0.000437	<0.000388	0.050
Particulate Matter (PM) lb/hr	0.203	0.373	0.226	4.2
Hydrogen Chloride (HCl) lb/hr	0.730	0.372	0.413	16.4
Mercury (Hg) lb/hr	<0.0000959	<0.0000856	<0.0000851	0.076
Cadmium (Cd) lb/hr	<0.0000356	<0.0000558	<0.0000428	7.5E-03
Lead (Pb) lb/hr	0.000277	0.000587	0.000465	0.12
Total Hydrocarbons (THC) lb/hr	0.0353	0.0350	0.108	1.8
Removal Efficiency				
Hydrogen Chloride (HCl) % (based on ppm @ 7% O_2)	99.6	99.8	99.8	≥95
Mercury (Hg) % (based on mg/dscm @ 7% O_2)	>99.6	>99.1	>99.3	≥95
Ash Handling System				
Fugitive Emissions, Min.	0	0	0	9
Visible Emissions				
Opacity %	1	3	0	10

* 2017 Stack Testing was conducted March 6-10, 2017.

Summary of Excess Emission Events (including those due to Startup, Shutdown and Malfunction) For the Period from January 1, 2013 through December 31, 2017

Date	Unit #	Parameter	Permit Limit (Corresponding Title V Permit Condition Listed at the end of this Section)	# Compliance Periods Above Limit	Event Cause
2/6/13	2	Opacity	10% for 6-minute block average	Twenty-four	Combustion of suspected iodine-containing waste
2/8/13	3	CO	100 ppm for 4-hour rolling average	Seven	Sudden loss of the induced draft fan
2/14-15/13	2	CO	100 ppm for 4-hour rolling average	Five	Sudden Tube Leak
3/8/13	2	Opacity	10% for a 6-minute block average	Six	Combustion of suspected iodine-containing waste
3/9/13	3	Opacity	10% for a 6-minute block average	Twenty	Combustion of suspected iodine-containing waste
4/23/13	2	CO	100 ppm for 4-hour rolling average	Two	Elevated values of CO during shutdown of unit for scheduled outage
5/19/13	3	Opacity	10% for a 6-minute block average	Three	Combustion of suspected iodine-containing waste
8/1/13	1	CO	100 ppm for 4-hour rolling average	Two	Exceedance occurred during shutdown of unit to repair tube leak
8/3/13	1	CO	100 ppm for 4-hour rolling average	One	Exceedance occurred during shutdown of unit to repair tube leak
10/1/13	1	CO	100 ppm for 4-hour rolling average	Six	Sudden tube leak
		SO_2	50 ppm for 3-hour rolling average	Four	
		NOx	225 ppm for 3-hour rolling Average	One	

Summary of Excess Emission Events (including those due to Startup, Shutdown and Malfunction) For the Period from January 1, 2013 through December 31, 2017

Date	Unit #	Parameter	Permit Limit (Corresponding Title V Permit Condition Listed at the end of this Section)	# Compliance Periods Above Limit	Event Cause
10/20/13	3	Opacity	10% for 6-minute block average	One	Combustion of suspected iodine-containing waste
1/6/14	2	CO	100 ppm for 4-hour rolling average	Two	High CO due to poor combustion
1/7/14	1	CO	100 ppm for 4-hour rolling average	Five	Plant trip caused by an external electrical fault
	2			Five	
	3			Five	
1/13/14	1	CO	100 ppm for 4-hour rolling average	Two	Plant trip caused by contractor mobile equipment fire
	2			Four	
	3			Four	
6/22/14	1	CO	100 ppm for 4-hour rolling average	Two	Plant trip caused by a power relay failure
	2			Seven	
	3			Five	
7/6/14	2	CO	100 ppm for 4-hour rolling average	Eight	Malfunction of the auxiliary burners
9/8/14	1	CO	100 ppm for 4-hour rolling average	Six	Plant trip caused by a breaker failure
	2			One	
	3			Three	
12/9/14	1	CO	100 ppm for 4-hour rolling average	Seven	Plant trip caused by loss of power process and process control communication
	2			Four	
	3			Four	
8/21/15	2	CO	100 ppm for 4-hour rolling average	Five	Sudden tube rupture
7/12/16	2	Opacity	10% for 6-minute block average	One	Processed suspected iodine-containing waste.

Summary of Excess Emission Events (including those due to Startup, Shutdown and Malfunction) For the Period from January 1, 2013 through December 31, 2017

Date	Unit #	Parameter	Permit Limit (Corresponding Title V Permit Condition Listed at the end of this Section)	# Compliance Periods Above Limit	Event Cause
7/25/16	1	CO	100 ppm for 4-hour rolling average	Six	Plant trip due to electrical fault
	3			Eight	
10/9/16	1	SO_2	50 ppm for 3-hour rolling average	One	Operations personnel were unable to reduce elevated SO_2 level in a timely manner.
2/13/17	1	CO	100 ppm for 4-hour rolling average	One	Failure of auxiliary burners to light to assist in combustion control
2/13/17	3	CO	100 ppm for 4-hour rolling average	Four	Failure of auxiliary burners to light to assist in combustion control
5/29/17	2	CO	100 ppm for 4-hour rolling average	Four	Poor combustion and overfeeding of wet MSW
9/8/17	1	CO	100 ppm for 4-hour rolling average	Four	Failure of multilin which resulted in trip of Unit #1 ID fan
9/24/17	3	CO	100 ppm for 4-hour rolling average	One	Hot CO condition was created by light off of waste and start of burners.
10/2/17	2	CO	100 ppm for 4-hour rolling average	One	Boiler overfeed and delayed operator response

SUMMARY OF OTHER TITLE V PEMIR COMPLIANCE DEVIATIONS DURING THE PERIOD FROM JANUARY 1, 2013 THROUGH DECEMBER 31, 2017

In addition to the excess emission events (including those that occurred during startup, shutdown and malfunction) that are summarized above, there were also the following permit deviations that occurred during the period of January 1, 2013 through December 31, 2017:

Title V Permit Reporting Deviations

Date	Description of Incident/Cause	Resolution	Agency Action
7/23/13	Unit #1 was below the optimized carbon injection rate demonstrated during compliance testing for one compliance period due to a carbon feeder trip.	Carbon flow was restored to the Unit.	NOV issued. Covanta Union paid a penalty of $1550 as part of a settlement agreement.

TITLE V CONDITIONS FOR WHICH THERE WAS INTERMITTENT COMPLIANCE DURING THE PERIOD FROM JANUARY 1, 2013 THROUGH DECEMBER 31, 2017

Excess emissions events (including those that occurred during startup, shutdown and malfunction periods) and other deviations from Title V Permit conditions that occurred during the period of January 1, 2013 – December 31, 2017 are provided in above. The corresponding Title V permit conditions for which there was ***intermittent compliance*** as detailed in Appendix A are listed below:

Constituent/Permit Limit	**Title V Condition (s)**
Opacity: 10% for 6-minute block average	U1, OS Summary, Reference #29; U1, OS1, OS3, and OS5, References #32 and #41
SO_2: 50 ppm or 85% reduction for 3-hour rolling average	U1, OS1, OS3 and OS5, Reference #5
CO: 100 ppm for 4-hour block average	U1, OS1, OS3, and OS5, Reference #49
CO: 100 ppm for 4-hour rolling average	U1, OS1, OS3, and OS5, References #13 and #34
NO_X: 225 ppm for 3-hour rolling average	U1, OS1, OS3 and OS5, Reference #16
Carbon Injection Rate: Must be maintained at or above optimized rate demonstrate during compliance testing.	U1, OS Summary, Reference #70; U1, OS1, OS3 and OS5, Reference #53.

Addendum

Administrative Amendments Request

COVANTA
Powering Today. Protecting Tomorrow.

Covanta Union, Inc.
1499 Rt One North
Rahway, NJ 07065
Tel 732 499 0101
Fax 732 499 0333

February 13, 2018

Mr. Harry Baist
NJDEP, Air Quality, Energy and Sustainability
Division of Air Quality
Bureau of Stationary Sources
401 East State Street, 2nd Floor
P.O. Box 420
Mail Code 401-02
Trenton, NJ 08625-0420

Re: Covanta Union, Inc.
Union County Resource Recovery Facility
Permit Activity Number: BOP140002
Program Interest Number: 41814
Administrative Amendments Request –
Addendum to Title V Renewal Application

Dear Mr. Baist:

Covanta Union hereby submits this Title V Operating Permit Administrative Amendments Request as an Addendum to the Title V Renewal Application. The items identified in this request include proposed administrative amendments to address items such as duplicate permit conditions, to correct inconsistencies in permit conditions, to propose language changes to clarify intent and augment existing conditions that currently apply to the facility for the purposes of completeness and clarity. None of the requested changes involve modifications to facility emissions sources.

Also included in this request is the proposed deletion of one permit condition that was originally included in the Title V Permit pursuant to 40 CFR 60, Subpart E, because this Subpart is no longer applicable to facilities that are covered by 40 CFR 60 Subparts Cb/Eb and 40 CFR 62, Subpart FFF.

Requested changes are listed in Attachment 1. For each requested change, Attachment 1 includes a description of the proposed change, identification of current Title V Reference(s) affected, reason for proposed change and proposed language to address the change, if applicable.

If you have any questions or require additional information, please contact Leah Riley of my staff at (732) 499-0101. We look forward to hearing from you regarding this Title V Permit Administrative Amendments request.

Very truly yours,

Alan W. Harleston
Facility Manager
Union County Resource Recovery Facility

c: L. Riley, Covanta Union
P. Earls, Covanta

ATTACHMENT 1

Item # 1 – Duplicate Permit Conditions in Subject Item FC

Proposed Change/Reason: Subject Item FC, Reference #s 16 -30 (pp. 1 of 107 through 6 of 107) are exact duplicates of Subject Item FC, Reference #s 1-15 (pp. 6 of 107 through 11 of 107). Therefore, the duplicate conditions FC, Subject Item, Reference #s 16 -30 should be deleted.

Item # 2 – Duplicate Permit Conditions in Subject Item FG1

Proposed Change/Reasons: Subject Item FG1 (dust generated by truck traffic on-site), Reference #2 (p. 12 of 107) is an exact duplicate of Subject Item FG1, Reference #1 (p. 12 of 107). Therefore, the duplicate condition Subject Item FG1, Reference #2 should be deleted.

Item # 3 – Duplicate Permit Conditions in Subject Item IS1

Proposed Change/Reasons: Subject Item IS1 (Distillate Oil Day Tanks >10,000 gallons), Reference #s 13 -24 (pp. 14 of 107 through 16 of 107) are exact duplicates of Subject Item IS1, Reference #s 1 – 12 (pp. 13 of 107 through 14 of 107). Therefore, the duplicate conditions Subject Item IS1, Reference #s 13-24 should be deleted.

Item # 4 – 0.1 gr/dscf @ 12 % CO_2 Particulate Limit Testing Frequency

Proposed Change/Reasons: Covanta Union, Covanta Camden, Covanta Warren and Covanta Essex's Title V Permits all contain the same particulate matter limit of 0.1 gr/dscf corrected to 12% CO_2. In accordance with U1, OS Summary, Reference #7 (p. 32 of 107), U1, OS Summary, Reference #19 (p. 36 of 107) and U1, OS 1/3/5, Reference #2 (p. 69 of 107), Covanta Union is testing and demonstrating compliance with this particulate limit (in addition to the particulate matter limits of 25 mg/dscm @ 7% O_2, 4.2 lb/hr and 0.01 gr/dscm @ 7% O_2) on an annual basis, while Covanta Camden, Covanta Warren and Covanta Essex, are required to conduct emissions tests to demonstrate compliance with the same PM limit of 0.1 gr/dscf corrected to 12% CO_2, on a less frequent 5-year basis. Since the particulate limit is applicable to each of the facilities in accordance with the same regulatory requirement, N.J.A.C. 7:27-11.3(a)4, Covanta Union requests that the testing frequency for this condition be made consistent with the other New Jersey facilities that are testing every five years.

Language that is proposed to be included is indicated with italics below; language that is proposed to be deleted is indicated with strikethrough below.

Subject Item/ Ref #	Applicable Requirement	Monitoring requirement	Recordkeeping Requirement	Submittal Action Requirement
U1, OS Summary Reference #7 (p. 32 of 107)	STACK TESTING REQUIREMENTS: Conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the particulate emission limits *(except the TSP limit of 0.1 gr/dscf 12% CO2; See U1, OS Summary, Reference #11)* by: i. Three test runs for TSP and ii. Three test runs for PM10. Testing must be conducted at worst case…	Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. Compliance with all TSP emission limits *(except the TSP limit of 0.1 gr/dscf 12% CO2; See U1, OS Summary, Reference #11)* pursuant to N.J.A.C 7:27-16(e) and 40 CFR 62.14103(a)(1) shall be determined by the average of three EPA Method 5 test runs….	NO proposed change.	NO Proposed change.

ITEM #4 – Continued on Next Page

Item # 4 – 0.1 gr/dscf Particulate Limit Testing Frequency – Continued from Previous Page

Language that is proposed to be included is indicated with italics below. Provided herein is proposed language for a **new** permit condition in the testing section of Union's Title V Permit that addresses the 0.1 gr/dscf @ 12% CO_2 particulate limit separately from the other TSP testing requirements.

Subject Item/ Ref #	**Applicable Requirement**	**Monitoring requirement**	**Recordkeeping Requirement**	**Submittal Action Requirement**
PROPOSED NEW CONDITION that would follow condition #10 on p. 34 of 107 *U1, OS Summary Reference #11 (p. 34 of 107)*	*STACK TESTING REQUIREMENTS: Conduct stack tests on each municipal solid waste combustor prior to permit renewal date (every 5 years) to demonstrate compliance with the particulate emission limit for each MWC of <=0.1 gr/dscf @ 12% CO_2. Testing must be conducted at worst case permitted operating conditions with regard to meeting the applicable standards, but without creating an unsafe condition. [N.J.A.C. 7:27-22.16(a)], [N.J.A.C. 7:27-22.16(e)]*	*Monitored by stack emission testing prior to permit renewal date based on each of three Department validated stack test runs.*	*Recordkeeping by stack test results upon occurrence of event. All records shall be maintained on-site in either paper copy or computer-readable format. [N.J.A.C. 22:27-16(e)]*	*Stack Test – Submit protocol, conduct test and submit results. Stack testing shall be performed using approved protocols. The Permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date. A full stack test report must be submitted to BTS and a certified summary test report must be submitted to the Regional Enforcement Office within 60 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a licensed professional engineer or certified industrial hygienist. [N.J.A.C. 7:27-22-16(e)], [N.J.A.C. 7:27-22-16(h)]*

Item 4 Continued in Next Page.

Item # 4 – 0.1 gr/dscf @ 12% CO_2 Particulate Limit Testing Frequency – Continued from Previous Page

Language that is proposed to be included is indicated with italics below; language that is proposed to be deleted is indicated with strikethrough below.

Subject Item/ Ref #	Applicable Requirement	Monitoring requirement	Recordkeeping Requirement	Submittal Action Requirement
U1, OS Summary Reference #19 (p. 36 of 107)	Particulate Emissions <= 0.1 gr/dscf @ 12% CO_2 (including ash, excluding the contribution of auxiliary fuel) for each combustor. Emission limit applies at all times including startup and shutdown. [N.J.A.C. 7:27-11.3(a)4]	Particulate Emissions: Monitored by stack emission testing ~~annually~~ *prior to permit renewal date (every 5 years)* based on each of three Department validated stack test runs. See stack testing requirements OS Summary. [N.J.A.C. 7:27-22.16(o)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements OS Summary. . [N.J.A.C. 22:27-16(e)]	Stack Test – Submit protocol, conduct test and submit results. As per the approved schedule. See stack test requirement, OS Summary [N.J.A.C. 7:27-22-16(o)]

Language that is proposed to be included is indicated with italics below; language that is proposed to be deleted is indicated with strikethrough below.

Subject Item/ Ref #	Applicable Requirement	Monitoring requirement	Recordkeeping Requirement	Submittal Action Requirement
U1, OS 1/3/5, Reference #2 (p. 69 of 107)	Particulate Emissions <= 0.1 gr/dscf @ 12% CO_2 in each stack flue for each incinerator, excluding the contribution of CO_2 from combustion of auxiliary fuel, except during periods of startup and shutdown, from preconstruction permit. [N.J.A.C. 7:27-22.16(a)]	Particulate Emissions: Monitored by stack emission testing ~~annually~~ *prior to permit renewal date (every 5 years)* based on based on any 60-minute period during operation (see beginning of U1, OS0). [N.J.A.C. 7:27-22.16(e)]	Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. (See beginning of U1, OS0) [N.J.A.C. 22:27-16(e)]	Stack Test – Submit protocol, conduct test and submit results. As per the approved schedule. (see beginning of U1, OS0), [N.J.A.C. 7:27-22-16(o)]

Item # 5 – 5-Year Testing Frequency Language Correction

Proposed Change/Reasons: The Union Title V Permit contains both annual and 5-year stack testing requirements. In earlier versions of the permits, the permit conditions addressing constituents required to be tested every 5-years indicated this frequency in the Applicable Requirements and the Monitoring Requirements by specifying emission testing "every five years". In subsequent permit versions, this language has changed from "every 5 years" to "prior to permit expiration date". The Department has not indicated any change in intent and the Covanta Union has continued to test on the same 5-year schedule, since "prior to permit expiration" is satisfied by the current testing schedule. However, there is different language in two locations in the permit (as well as conflicting language within the same two conditions below), which is inconsistent with the language in all the other locations in the current permit and which reads as follows: Conduct stack tests "**within one year prior** to permit expiration". This language is inconsistent with the Facility's current 5-year testing schedule and is believed to be a mistake. The Permittee proposes that this language be corrected in these two locations in the permit, as indicated below, so that the testing language is consistent within these subject conditions, throughout the permit (U1, OS1/3/5, Reference #s 6, 10, 11, 12, 15, 18, 21, 22, 23, 24, 25, 29 and 30) and with the current practice of testing every 5 years on the current schedule; once during each permit term for the full 5-year scope of constituents in addition to annual testing, which provides complete stack test data for Department review prior to each 5-year permit renewal. Language that is proposed to be included is indicated with italics below; language that is proposed to be deleted is indicated with strikethrough below.

Subject Item/ Ref #	Applicable Requirement	Monitoring requirement	Recordkeeping Requirement	Submittal Action Requirement
U1, OS Summary Reference #9 (p. 34 of 107)	STACK TESTING REQUIREMENTS: Conduct stack tests on each municipal solid waste combustor using an approved protocol ~~within one year~~ prior to expiration of the renewed operating permit *(every 5 years)* to demonstrate compliance with the SO2, nitrogen oxides, SO3 + H2SO4, ….	Monitored by stack emission prior to permit expiration date *(every 5 years)*, based on the average of three Department validated stack test runs. Stack tests shall be conducted for SO2, nitrogen oxides….	Recordkeeping by stack test results upon occurrence of event based on the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Stack Test – Submit protocol, conduct test, submit results: As per the approved schedule. Stack testing shall be performed using the approved protocols…

ITEM #5 – Continued on Next Page

Item # 5 – Continued

Language that is proposed to be included is indicated with italics below; language that is proposed to be deleted is indicated with strikethrough below.

Subject Item/ Ref #	Applicable Requirement	Monitoring requirement	Recordkeeping Requirement	Submittal Action Requirement
U1, OS Summary Reference #10 (p. 34 of 107)	STACK TESTING REQUIREMENTS: Conduct stack tests on each municipal solid waste combustor using an approved protocol ~~within one year~~ prior to expiration of the renewed operating permit *(every 5 years)* to demonstrate compliance with the 1-hour CO and HF emission limits	Monitored by stack emission prior to permit expiration date *(every 5 years)*, based each of three Department validated stack test runs using EPA Method 10 for CO and EPA Method 13B for HF....	Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Stack Test – Submit protocol, conduct test, submit results: As per the approved schedule. Stack testing shall be performed using the approved protocols...

Item # 6 – Proposed SO_2 Permit Limit Language Clarification

Proposed Change/Reason: The Permittee proposes that the language for the SO_2 limit contained in Subject Item U1, OS 1/3/5, Reference #7 (p. 70 of 107) be edited as shown below for purposes of clarity:

Proposed language is in italics; and language proposed to be deleted is indicated with strikethrough:

Subject Item/ Ref #	Applicable Requirement	Monitoring requirement	Recordkeeping Requirement	Submittal Action Requirement
U1, OS1, OS3 and OS5, References #7 (p. 70 of 107)	SO_2 *limit for each MWC of* <= 30 ppmvd @ 7% O_2 *or 20% of the potential sulfur dioxide emission concentration (80% reduction by weight or volume), whichever is less stringent, based on a 24-hour geometric average* ~~shall be the mean emission concentration limit in the flue gas of each unit or the limit in the flue gas from that unit shall be less than 20% of the geometric mean emission concentration of SO2 at the inlet to the acid control equipment, whichever limit is less stringent. These limits apply during any 24-hour block period~~ beginning at midnight and ending at midnight the following day. [N.J.A.C. 7:27-22.16(e)]	NO proposed change	NO proposed change	N) proposed change

Item # 7 – Inconsistency in HCl Stack Test Frequency Language

Proposed Change/Reason: Subject Item U1, OS Summary, Reference #5 (p. 30 of 107), requires annual emissions testing for hydrogen chloride to demonstrate compliance with all of the facility's hydrogen chloride limits including the mass emission limit of 16.4 lb/hr. However, in the Monitoring Requirement column of U1, OS 1/3/5, Reference #10 (p.71 of 107), which establishes the 16.4 lb/hr limit for hydrogen chloride, the testing frequency is indicated as "prior to permit expiration date" which is inconsistent with the other HCl stack test requirements and with current testing practice and should be changed to annual. There is also a sentence that indicates that "Testing may be conducted on one unit" that is believed to be a mistake, and also should be deleted.

Proposed language in italics and language proposed to be deleted indicated with strikethrough:

Subject Item/ Ref #	**Applicable Requirement**	**Monitoring requirement**	**Recordkeeping Requirement**	**Submittal Action Requirement**
U1, OS1, OS3 and OS5, References #10 (p. 71 of 107)	Hydrogen Chloride <=16.4 lb/hr from each unit, from operating permit application, except during period of startup and shutdown. [N.J.A.C. 7:27-22.16(a)]	Hydrogen chloride: Monitored by stack emission testing *annually* ~~prior to permit expiration date~~, based on each of three Department validated stack test runs. (see beginning of U1, OS0) ~~Testing may be conducted on one unit.~~ [N.J.A.C. 7:27-22.16(e)]	No proposed change	No proposed change

Item # 8 – 40 CFR 60, Subpart E No Longer Applicable to the UCRRF

Proposed Change/Reason: Propose deleting Subject Item U1, OS 1/3/5, Reference #31 (p. 76 of 107) which contains the particulate limit of <=0.015 gr/dscf @ 7% O_2 from 40 CFR 60, Subpart E, Standards for Incinerators. Subpart E no longer applies to facilities that are covered by 40 CFR 60 Subparts Cb/Eb and/or 40 CFR 62 Subpart FFF. See Applicability Section of 40 CFR 60.50 below.

60.50 Applicability and designation of affected facility

(a) The provisions of this subpart are applicable to each incinerator of more than 45 metric tons per day charging rate (50 tons/day), which is the affected facility.
(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.
(c) Any facility covered by subpart Cb, Eb, AAAA, or BBBB of this part **is not** covered by this subpart.
(d) Any facility covered by an EPA approved State section 111(d)/129 plan implementing subpart Cb or BBBB of this part **is not** covered by this subpart.
(e) Any facility covered by subpart FFF or JJJ of part 62 of this title (Federal section 111(d)/129 plan implementing subpart Cb or BBBB of this part) **is not** covered by this subpart.

Furthermore, the Union Facility's Title V Permit currently contains the more restrictive particulate emissions limit of <=0.01 gr/dscf @ 7% O_2 in Subject Item, U1, OS 1/3/5, Reference #1 (p.69 of 107). Since the Subpart E limit of 0.015 gr/dscf @ 7% O_2 no longer applies and the Title V Permit contains a more restrictive limit, the Permittee proposes deleting Subject Item U1, OS 1/3/5, Reference #31 (p. 76 of 107).

Item # 9 – Propose Augmentation of Operating Manual Requirement to Refer to 40 CFR 60 Subparts Cb/Eb

Proposed Change/Reason: Subject Item U1, OS 1/3/5, Reference #38 (p. 78 of 107) which contains the operating manual requirement correctly references 40 CFR 60 Subpart Ea, but should be augmented to reference 40 CFR 60 Subparts Cb and Eb, as well, since the operating manual must/does also address the applicable standards contained in these regulations.

Proposed language in italics:

Subject Item/ Ref #	Applicable Requirement	Monitoring requirement	Recordkeeping Requirement	Submittal Action Requirement
U1, OS1, OS3 and OS5, References #38 (p. 78 of 107)	OPERATING MANUAL: The facility must develop and update on a yearly basis a manual that must, at a minimum, address the following elements of municipal waste combustor unit operation: A summary of the applicable standards of 40 CFR 60 Subpart Ea *and Subparts Cb/Eb*;.... Procedures for operating the MWC unit within the standards established under 40 CFR 60 Subpart *Ea and Subparts Cb/Eb*;... [40 CFR 60.56a(f) *and 40 CFR 60.54b(e)*]	None	Other: The operating manual and records of training must be available for inspection by USEPA or the Department upon request [40 CFR 60.59a(j) *and 40 CFR 60.54b(g)*]	None