

**New Jersey Department of Environmental Protection  
Reason for Application**

**Permit Being Modified**

**Permit Class:** BOP      **Number:** 130002

**Description**      Renewal of 5 year title 5 permit for facility Camden County Energy recovery Associates LP.  
**of Modifications:** Program Interest Number 51614  
Plant Location Morgan Blvd & I676

New Jersey Department of Environmental Protection  
Facility Profile (General)

Facility Name (AIMS): Camden County Energy Recovery Associates | Facility ID (AIMS): 51614

Street 600 MORGAN BLVD  
Address: CAMDEN, NJ 08104

Mailing 600 MORGAN BLVD  
Address: CAMDEN, NJ 08104

County: Camden  
Location I-676 and Morgan BLVD  
Description:

|                                 |                      |
|---------------------------------|----------------------|
| <b>State Plane Coordinates:</b> |                      |
| X-Coordinate:                   | 318,966              |
| Y-Coordinate:                   | 393,642              |
| Units:                          | Feet                 |
| Datum:                          | NAD83                |
| Source Org.:                    | DEP-Program          |
| Source Type:                    | DEP Program Database |

|                  |        |
|------------------|--------|
| <b>Industry:</b> |        |
| Primary SIC:     |        |
| Secondary SIC:   |        |
| NAICS:           | 562213 |

**New Jersey Department of Environmental Protection  
Facility Profile (General)**

**Contact Type: Air Permit Information Contact**

**Organization:** **Org. Type:** Corporation  
**Name:** Patrick J. Friscia **NJ EIN:** 22218299000  
**Title:** Environmental Specialist  
**Phone:** (856) 757-6305 x **Mailing Address:** 600 Morgan Blvd  
**Fax:** (856) 966-7990 x Camden, NJ 08104  
**Other:** (215) 833-8635 x  
**Type:** Mobile  
**Email:** pfriscia@covanta.com

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**Contact Type: BOP - Operating Permits**

**Organization:** **Org. Type:** Corporation  
**Name:** Patrick J. Friscia **NJ EIN:** 22218299000  
**Title:** Environmental Specialist  
**Phone:** (856) 757-6305 x **Mailing Address:** 600 Morgan Blvd  
**Fax:** (856) 966-7990 x Camden, NJ 08104  
**Other:** (215) 833-8635 x  
**Type:** Mobile  
**Email:** pfriscia@covanta.com

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**Contact Type: Environmental Officer**

**Organization:** **Org. Type:** Corporation  
**Name:** Patrick J. Friscia **NJ EIN:** 22218299000  
**Title:** Environmental Specialist  
**Phone:** (856) 757-6305 x **Mailing Address:** 600 Morgan Blvd  
**Fax:** (856) 966-7990 x Camden, NJ 08104  
**Other:** (215) 833-8635 x  
**Type:** Mobile  
**Email:** pfriscia@covanta.com

New Jersey Department of Environmental Protection  
Facility Profile (General)

**Contact Type: General Contact**

**Organization:**

**Name:** Patrick J. Friscia

**Title:** Environmental Specialist

**Phone:** (856) 757-6305 x

**Fax:** (856) 966-7900 x

**Other:** (215) 833-8635 x

**Type:** Mobile

**Email:** pfriscia@covanta.com

**Org. Type:** Corporation

**NJ EIN:** 22218299000

**Mailing Address:** 600 Morgan Blvd  
Camden, NJ 08104

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**Contact Type: On-Site Manager**

**Organization:**

**Name:** Richard Harrington

**Title:** Facility Manager

**Phone:** (856) 757-6301 x

**Fax:** (856) 966-7990 x

**Other:** ( ) - x

**Type:**

**Email:** rharrington@covanta.com

**Org. Type:** Corporation

**NJ EIN:** 22218299000

**Mailing Address:** 600 Morgan Blvd  
Camden, NJ 08104

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**Contact Type: Responsible Official**

**Organization:**

**Name:** Richard Harrington

**Title:** Facility Manager

**Phone:** (856) 757-6301 x

**Fax:** (856) 966-7990 x

**Other:** ( ) - x

**Type:**

**Email:** rharrington@covanta.com

**Org. Type:** Corporation

**NJ EIN:** 22218299000

**Mailing Address:** 600 Morgan Blvd.  
Camden, NJ 08104

**New Jersey Department of Environmental Protection  
Facility Profile (Permitting)**

- |  |                 |
|--|-----------------|
| <b>1. Is this facility classified as a small business by the USEPA?</b>  | No              |
| <b>2. Is this facility subject to N.J.A.C. 7:27-22?</b>  | Yes             |
| <b>3. Are you voluntarily subjecting this facility to the requirements of Subchapter 22?</b>                         | No              |
| <b>4. Has a copy of this application been sent to the USEPA?</b>   | No              |
| <b>5. If not, has the EPA waived the requirement?</b>  | No              |
| <b>6. Are you claiming any portion of this application to be confidential?</b>                                       | No              |
| <b>7. Is the facility an existing major facility?</b>  | Yes             |
| <b>8. Have you submitted a netting analysis?</b>   | No              |
| <b>9. Are emissions of any pollutant above the SOTA threshold?</b>   | Yes             |
| <b>10. Have you submitted a SOTA analysis?</b>   | No              |
| <b>11. If you answered "Yes" to Question 9 and "No" to Question 10, explain why a SOTA analysis was not required</b> | Title V Renewal |
| <b>12. Have you provided, or are you planning to provide air contaminant modeling?</b>                               | No              |

New Jersey Department of Environmental Protection  
 Insignificant Source Emissions

| IS NJID | Source/Group Description                    | Equipment Type                    | Location Description    | Estimate of Emissions (tpy) |       |       |       |       |       |       |              |               |       |  |
|---------|---|-----------------------------------|-------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|--------------|---------------|-------|--|
|         |   |                                   |                         | VOC (Total)                 | NOx   | CO    | SO    | TSP   | PM-10 | Pb    | HAPS (Total) | Other (Total) |       |  |
| IS1     | Admin Bldg Heater (natural gas)             | Fuel Combustion Equipment (Other) | Administration Building | 0.014                       | 0.123 | 0.052 | 0.052 | 0.015 | 0.015 | 0.015 |              |               |       |  |
| IS2     | 20,000 gal #2 Fuel oil storage tank         | Storage Vessel                    |                         | 0.005                       |       |       |       |       |       |       |              |               |       |  |
| IS3     | Cooling Tower (<50lb/hr chemical additives) | Other Equipment                   |                         |                             |       |       |       | 0.001 | 0.001 | 0.001 |              |               |       |  |
| Total   |   |                                   |                         | 0.019                       | 0.123 | 0.052 | 0.052 | 0.016 | 0.016 | 0.016 | 0.000        | 0.00000000    | 0.000 |  |



New Jersey Department of Environmental Protection  
Division of Air Quality

# Attachment to the RADIUS Air Operating Permit Renewal Application

Submittal Date: 06/04/2018

Facility Name: Camden County Energy Recovery Associates LP

PI#: 51614

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, 2<sup>nd</sup> Floor, P.O. Box 420, Mail Code 401-02, Trenton, NJ 08625-0420

Operating Permits Helpline 609-633-8248

Revised Feb 26, 2018

## Table of Contents

| <b>Section</b> | <b>Title</b>  | <b>Page</b> |
|----------------|---|-------------|
|                | <b>Applying for an Operating Permit Renewal</b>                 | <b>1</b>    |
| <b>1</b>       | <b>Compliance Requirements</b>                                  | <b>2</b>    |
| <b>2</b>       | <b>Certification</b>  | <b>4</b>    |
| <b>3</b>       | <b>Summary of 7-Day Notice Changes</b>                          | <b>5</b>    |
| <b>4</b>       | <b>Summary of the Results from Stack Testing and Monitoring</b> | <b>6</b>    |
| <b>5</b>       | <b>Compliance Status</b>  | <b>103</b>  |
|                | - <b>Instructions</b>   | <b>103</b>  |
|                | - <b>Compliance Schedules</b>                                   | <b>112</b>  |



## 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.

### 5. New HAP Reporting Thresholds

Pursuant to N.J.A.C. 7:27-22.30(l), for any operating permit expiring on or after February 12, 2021, HAP emissions from a source operation that equal or exceed the reporting threshold specified in N.J.A.C. 7:27-17.9(a) must be included during this operating permit renewal process. Any HAP that is not authorized in the operating permit in effect must be included through the submittal of a permit modification application pursuant to N.J.A.C. 7:27-22.23 or N.J.A.C. 7:27-22.24 as applicable.

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 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.

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## Attachment to the RADIUS Air Operating Permit Renewal Application

### 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/agpp/permitguide.html> and <http://www.state.nj.us/dep/agpp/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.

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**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#: 51614  
Facility Name: Camden County Energy Recovery Associates LP

**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: Richard Harrington Signature:  Date: 6/4/18

**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:                    | <u>Patrick J. Friscia</u> | Signature: | <u></u> | Date: | <u>Jan 4, 2018</u> |
| Section Being Certified: | _____                     | Signature: | _____  | Date: | _____              |
| Name:                    | _____                     | Signature: | _____  | Date: | _____              |
| Section Being Certified: | _____                     | Signature: | _____  | Date: | _____              |
| Name:                    | _____                     | Signature: | _____  | Date: | _____              |
| Section Being Certified: | _____                     | Signature: | _____  | Date: | _____              |

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**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  |
|-----|----------------------|--|
|     |                      | No 7-day Notice Changes have been submitted since the most recent OP renewal dated August 11, 2015 |
|     |                      |  |
|     |                      |  |
|     |                      |  |
|     |                      |  |
|     |                      |  |
|     |                      |  |
|     |                      |  |
|     |                      |  |
|     |                      |  |

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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 |
| GR1                 | 2          | For E1,2,3,9,10, all requests, reports, applications, submittals, and other communications to the Administrators pursuant to Part 60 shall be submitted in duplicate to the Regional Office of US Environmental Protection Agency. Submit information to Region II, Air and Waste Management | None                   | None                      | Submit a report: As per the approved schedule to EPA Region II as required by 40 CFR 60. [40 CFR 60.4(a)]   | ✓              |    |
| GR1                 | 3          | For E1,2,3,9,10, copies of all information submitted to EPA pursuant to 40 CFR Part 60, must also be submitted to the Southern Regional Enforcement Office of NJDEP at One Port Center, 2 Riverside Drive Suite  | None                   | None                      | Submit a report: As per the approved schedule to the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60. [40 CFR 60.4 (b)] | ✓              |    |

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**Attachment to the RADIUS Air Operating Permit Renewal Application**

**Section 4  
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**Instructions**

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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement | Recordkeeping Requirement  | Submission/Action Requirement  | In Compliance? |    |
|---------------------|------------|--|------------------------|--|--|----------------|----|
|                     |            |  |                        |  |  | Yes            | No |
| GR1                 | 4          | For E1,2,3,9,10, the owner of operator subject to the provisions of 40 CFR Part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source electronic notification. | None                   | None   | Submit notification: Upon occurrence of event to EPA Region II and the appropriate Regional Enforcement Office of NJDEP as required by 40 CFR 60.7 [40 CFR 60.7(a)(4)] | ✓              |    |
| GR1                 | 5          | For E1,2,3,9,10, the owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of air pollution                                   | None                   | Recordkeeping by manual logging of parameter upon occurrence of event. The records should be kept in a permanent form suitable for inspections. [40 CFR 60.7(b)] | None   | ✓              |    |

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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 |
| GR1                 | 6          | For E1,2,3 each owner or operator required to install a continuous monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subpart) and/or a summary | None                   | None   | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Semi-annually beginning on the 30th day of the 6th month following initial performance tests. The report shall be postmarked by the 30th day | ✓              |    |
| GR1                 | 7          | For E1,2,3,9,10, the owner or operator shall maintain a file, suitable for inspection, of all monitoring measurements as indicated in Recordkeeping Requirement column. [40 CFR 60.7(f)]  | None                   | Other: The file shall include all measurements (including continuous monitoring system, monitoring device, and performance testing measurements), all continuous monitoring system performance evaluations, all continuous | None   | ✓              |    |

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**Attachment to the RADIUS Air Operating Permit Renewal Application**

**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 |
| GR1                 | 8          | <p>or E1,2,3,9,10, the owner or operator shall conduct performance tests and data reduced in accordance with the test methods and procedures contained in each applicable subpart, unless otherwise specified and approved by the Administrator. [40 CFR 60.8 (b)(1)]</p> | None                   | None                      | None                         | ✓              |    |
| GR1                 | 9          | <p>For E1,2,3,9,10, performance tests shall be conducted under conditions the Administrator specifies to the plant operator based on representative performance of the affected facility. Operations during periods</p>   | None                   | None                      | None                         | ✓              |    |

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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 |
| GR1                 | 10         | For E.1,2,3,9,10, the owner or operator shall provide the Administrator at least 30 days prior notice of any performance test and shall provide adequate performance testing facilities as specified in 40 CFR Part 60.8(e), 140 CFR 60.8(a)(1) [ | None                   | None                      | None                         | ✓              |    |
| GR1                 | 11         | For E.1,2,3,9,10, unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. [40 CFR 60.8(f)]   | None                   | None                      | 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 |
| GR1                 | 12         | For E1,2,3 compliance with NSPS standards specified in this permit, other than opacity, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in NSPS. 40 CFR 60.11(a) | None   | None  | None   | <input checked="" type="checkbox"/> |    |
| GR1                 | 13         | For E1,2,3,9,10, for equipment required to conduct visual opacity tests (E1, E2, E3, E9, and E10): The owner or operator shall demonstrate compliance with NSPS opacity standards specified in 40 CFR Part 60. [40    | Monitored by visual determination annually, based on 6 minute blocks on an annual basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test and must | Recordkeeping by manual logging of parameter or storing data in a computer data system annually. The owner or operator shall maintain records of opacity of emissions based on Method 9 observations. | Submit a report: Annually. The owner or operator shall submit results of Method 9 observation data to the Administrator. For E 9, 10 submit results of Method 22. [40 CFR 60.11(e)(2)] | <input checked="" type="checkbox"/> |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement  | Recordkeeping Requirement   | Submittal/Action Requirement   | In Compliance? |    |
|---------------------|------------|---|---|---|--|----------------|----|
|                     |            |   |   |   |  | Yes            | No |
| GR1                 | 14         | For E1,2,3 for equipment subject to the NSPS COM requirement, the owner or operator shall demonstrate NSPS opacity standards specified in 40 CFR Part 60. [40 CFR 60.11(b)]               | Monitored by continuous opacity monitor continuously, based on 6 minute blocks. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours for the performance test. [40 CFR 60.11(c)] | Recordkeeping by strip chart or data acquisition (DAS) system continuously or a file of all data maintained in a permanent form suitable for inspection. [N.J.A.C. 7:27-22.16(a)] | Submit a report: At a common schedule agreed upon by the operator and the Administrator. The owner or operator shall submit Continuous Opacity Monitoring System (COMS) data produced during any performance test in lieu of | ✓              |    |
| GR1                 | 15         | For E1,2,3,9,10, the NSPS opacity standard shall apply at all times except during periods of startup, shutdown, malfunctions and as otherwise specified in this permit. [40 CFR 60.11(c)] | None  | None  | None   | ✓              |    |

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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 |
| GR1                 | 16         | For E1,2,3,9,10, at all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in accordance with the permit conditions. | None                   | None                      | None                         | ✓              |    |
| GR1                 | 17         | For E1,2,3,9,10, no owner or operator subject to NSPS standards in Part 60, shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would   | None                   | None                      | None                         | ✓              |    |

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Section 4  
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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement | Recordkeeping Requirement  | Submittal/Action Requirement | In Compliance? |    |
|---------------------|------------|--|------------------------|--|------------------------------|----------------|----|
|                     |            |  |                        |  |                              | Yes            | No |
| GR1                 | 18         | For E1,2,3 the owner or operator shall perform zero and span adjustments daily for continuous emission monitors and continuous opacity monitors following procedures outlined in 40 CFR Part 60.13(a)(1) & 2. 40 CFR 60.13                         | None                   | Other: Maintain records in accordance with 40 CFR 60.7(f), 40 CFR 60.13(a)(1). | None                         | ✓              |    |
| GR1                 | 19         | For E1,2,3 except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous opacity monitoring systems shall be in continuous operation. They shall complete a minimum <input checked="" type="checkbox"/> | None                   | None   | None                         | ✓              |    |

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|---------------------|------------|--|------------------------|---------------------------|------------------------------|-------------------------------------|----|
|                     |            |  |                        |                           |                              | Yes                                 | No |
| GR1                 | 20         | For E1,2,3 except for system breakdowns, repairs, calibration checks, and zero and span adjustments, all continuous monitoring systems measuring emissions except opacity shall be in continuous operation. They shall complete a minimum of one | None                   | None                      | None                         | <input checked="" type="checkbox"/> |    |
| GR1                 | 21         | For E1,2,3 all continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are  | None                   | None                      | None                         | <input checked="" type="checkbox"/> |    |

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|---------------------|------------|--|------------------------|---|------------------------------|----------------|----|
|                     |            |  |                        |   |                              | Yes            | No |
| GR1                 | 22         | The owner or operator of all continuous monitoring systems for measuring opacity shall reduce all data to 6-minute averages which shall be calculated from 36 or more data points equally spaced over each 6-minute period. Six-minute <input checked="" type="checkbox"/> | None                   | None  | None                         | ✓              |    |
| GR1                 | 23         | The owner or operator of all continuous monitoring systems (other than opacity) shall reduce all data to 1-hour averages for time periods. One-hour period is defined in 40 CFR 60.2 as any 60-minute period <input checked="" type="checkbox"/>                           | None                   | Other: See Applicable Requirement. (40 CFR 60.13(h)). | None                         | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement | In Compliance?                      |    |
|---------------------|------------|--|------------------------|---------------------------|------------------------------|-------------------------------------|----|
|                     |            |  |                        |                           |                              | Yes                                 | No |
| GR1                 | 24         | All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subparts. After conversion into units of the standard, the data may be rounded to the same number of | None                   | None                      | None                         | <input checked="" type="checkbox"/> |    |
| GR1                 | 25         | For E1,2,3,9, 10, changes in time periods for submittal of information and postmark deadlines set forth in this subpart, may be made only upon approval by the Administrator and shall follow procedures                                       | None                   | None                      | None                         | <input checked="" type="checkbox"/> |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement | In Compliance? |    |
|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| GR1                 | 26         | The facility shall comply, as applicable, with all current and future applicable MACT regulations. [N.J.A.C. 7:27-22.16(e)] | None                   | None                      | None                         | ✓              |    |
|                     |            |   |                        |                           |                              |                |    |

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|---------------------|------------|--|--|---|--|----------------|----|
|                     |            |  |  |   |  | Yes            | No |
| U1, OS Sum.         | 1          | <b>STACK TESTING SUMMARY</b><br>The permittee shall conduct stack tests using an approved protocol to demonstrate..... allowed by this permit, shall be taken at the same worst case conditions as described above. <b>N.J.A.C. 7:27-22.16</b> | <b>Other: Monitoring as required by the OS</b><br>Summary or under the applicable operating scenario(s) <b>(N.J.A.C. 7:27-22.16(o))</b> .  | <b>Recordkeeping by stack test results upon occurrence of event. Recordkeeping as required by the OS Summary or under the applicable operating scenario (o). (N.J.A.C. 7:27-22.16(o))</b> | Stack Test - Submit protocol, conduct test and submit results. As per the approved schedule, i.e., as required by the OS Summary or Operating Scenario conditions elsewhere in this permit. <b>[N.J.A.C. 7:27-22.16(o)]</b>  | <b>✓</b>       |    |
| U1, OS SUM.         | 2          | Conduct a comprehensive stack test on each municipal solid waste combustor using an approved protocol at emission point PT1, PT2, and PT3 at least 18 months prior to the expiration of the approved operating permit                          | Monitored by stack emission testing prior to permit expiration date. Stack tests shall be based on the average of three one hour tests for all contaminants except for hydrogen fluoride, carbon monoxide, and | <b>Recordkeeping by stack test results upon occurrence of event. (N.J.A.C. 7:27-22.16(o))</b>   | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule, 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). | <b>✓</b>       |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement   | Recordkeeping Requirement  | Submittal/Action Requirement   | In Compliance?                      |                          |
|---------------------|------------|--|--|--|--|-------------------------------------|--------------------------|
|                     |            |  |  |  |  | Yes                                 | No                       |
| U1, OS Sum          | 3          | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the arsenic, beryllium, chromium, and nickel permit limits. Testing must be conducted at worst-case permitted <input checked="" type="checkbox"/> | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(e)] | 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. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results. As per the approved schedule. Stack testing shall be performed using approved protocols. The protocol and test report must.....As indicated in 40 CFR 59b(a)(1) a list of the <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 4          | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor using EPA Method 5 to demonstrate compliance with the particulate emission limits of 3.59 lb/hr and with 0.013 <input checked="" type="checkbox"/>                               | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(e)] | 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. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results. As per the approved schedule. Stack testing shall be performed using approved protocols, pursuant to N.J.A.C. 7:27-22.19(d). The test results <input checked="" type="checkbox"/>                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement   | Recordkeeping Requirement   | Submittal/Action Requirement  | In Compliance?                      |    |
|---------------------|------------|--|--|---|---|-------------------------------------|----|
|                     |            |  |  |   |   | Yes                                 | No |
| U1, OS Sum          | 5          | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the particulate emission limit of 25 mg / DSCM corrected to 7% O2 allowable, from the filterable catch of the | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. [40 CFR 62.14109(b)]   | Recordkeeping by stack test results upon occurrence of event All records shall be maintained on site in either paper copy or computer-readable format. This is as specified at 40 CFR 60.596(e) (9)(i) and 40 CFR 60.596(k) in J.A.C. | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols. The protocol and test report must be prepared and submitted.....pursuant to N.J.A.C. 7:27-22.19(d). The | <input checked="" type="checkbox"/> |    |
| U1, OS Sum          | 6          | For Pt1, Pt2, and Pt3, conduct a comprehensive stack test using an approved protocol within one year prior to the expiration of the renewed operating permit on each municipal solid waste combustor to                                | Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. Testing for particulates shall be performed as follows.:Three test runs using | 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. 7:27-22.16(e)]  | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule Stack testing shall be performed using approved protocols..... report must be submitted to the Regional Enforcement Office within 60                                | <input checked="" type="checkbox"/> |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement   | Recordkeeping Requirement   | Submittal/Action Requirement   | In Compliance? |    |
|---------------------|------------|---|--|---|--|----------------|----|
|                     |            |   |  |   |  | Yes            | No |
| U1, OS Sum          | 7          | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor using EPA Method 5 to demonstrate compliance with the particulate emission limit of 0.03 grains/dscf, corrected to 7% oxygen from the | Monitored by stack emission testing annually, based on each of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(e)]        | 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. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols.....stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results   | ✓              |    |
| U1, OS Sum          | 8          | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the PM-10 emission limit of 0.013 grains/dscf, corrected to 7% oxygen, from                            | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(o)] | 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. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols.....performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement  | Recordkeeping Requirement  | Submittal/Action Requirement   | In Compliance?                      |                          |
|---------------------|------------|---|---|--|--|-------------------------------------|--------------------------|
|                     |            |   |   |  |  | Yes                                 | No                       |
| U1, OS Sum          | 9          | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the total PM-10 emission limit of 7.02 lb/hr. Total PM-10 shall include both filterable and condensable catches from | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. (N.J.A.C. 7:27-22.16(e))  | Recordkeeping by stack test results upon occurrence of event. Recordkeeping shall be done through test reports pursuant to N.J.A.C. 7:27-22.19. (N.J.A.C. 7:27-22.16(e))                                     | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols.....performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 10         | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate HCl emission limits. Testing must be conducted at worst-case permitted operating   | Monitored by stack emission testing annually, based on each of three Department validated stack test runs to demonstrate compliance with emission limits pursuant to N.J.A.C. 7:27-22.16(e), and the average of | Recordkeeping by stack test results upon occurrence of event All records shall be maintained onsite in either paper copy or computer-readable format. This is as indicated in 40 CFR 60.59b(d) (9)(i) and 40 | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols.....pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a New | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement  | Recordkeeping Requirement  | Submittal/Action Requirement   | In Compliance? |    |
|---------------------|------------|---|---|--|--|----------------|----|
|                     |            |   |   |  |  | Yes            | No |
| U1, OS Sum          | 11         | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the mercury limits and the requirements under N.J.A.C. 7:27-22.16(e), N.J.A.C. 7:27-27.4 and 40CFR 60.58b. | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs using EPA Reference Method 29. The tests for mercury shall consist of three source emission tests to measure | Recordkeeping by stack test results upon occurrence of event. All records shall be maintained onsite in either paper copy or computer-readable format. This is as indicated in 40 CFR 60.58b(e) (9)(i) and 40 CFR 60.58b(i) N.J.A.C. | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols. The protocol and test report must be prepared and submitted.....performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results | ✓              |    |
| U1, OS Sum          | 12         | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the lead and cadmium emission limits. Stack testing is as required at 40 CFR 60.58b.                       | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. Stack testing for lead and cadmium (using EPA Method 29) shall be as required at 40 CFR                     | Recordkeeping by stack test results upon occurrence of event All records shall be maintained onsite in either paper copy or computer-readable format. This is as indicated in 40 CFR 60.58b(d) (9)(i) and 40                         | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols. The test report must be prepared and submitted.....The 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, OS Sum          | 13         | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with total polychlorinated dibenzodioxin and dibenzofuran emission limits. Total polychlorinated | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs Sample time shall be at least 4 hours per run, using EPA test Method 23 as specified at 40 CFR 60.559(a)(3). This is as | Recordkeeping by stack test results upon occurrence of event All records shall be maintained onsite in either paper copy or computer-readable format. This is as specified at 40 CFR 60.559(a)(9)(i) and 40 CFR 60.559(k), 140 CFR | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols. The protocol and test report must be prepared and submitted on a CD using the Electronic | ✓              |    |
| U1, OS Sum          | 14         | For Pt1, Pt2, and Pt3, conduct annual stack tests on each municipal solid waste combustor to demonstrate compliance with the ammonia emission limits from BOP100003. Testing must be conducted at                    | Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. [N.J.A.C. 7:27-22.16(o)]   | Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]   | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Stack testing shall be performed using approved protocols. The protocol and test report must be prepared and submitted.....performing               | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 15         | Particulate Emissions $\leq$ 18.23 lb/hr allowable for each combustor as determined from the Table at 7:27-4.2(a). The emission limit applies at all time including startup and shutdown. [N.J.A.C. 7:27-4.2 (a)] | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 16         | SO2 $\leq$ 2,000 ppmvd Maximum allowable per combustor emission limit from N.J.A.C. 7:27-7.2(b)(1). The emission limit applies at all time including startup and shutdown. [N.J.A.C. 7:27-7.2(b)1]                | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|--|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |  |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 17         | SO <sub>2</sub> ≤ 1,500 lb/hr Maximum allowable per combustor emission limit as specified at N.J.A.C. 7:27-7.2(r). The emission limit applies at all time including startup and shutdown. (N.J.A.C. 7:27-7.2 (b)(2))   | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 18         | SO <sub>2</sub> ≤ 3,000 lb/hr maximum allowable per combustor at any instant, based on the calculation procedure at N.J.A.C. 7:27-7.2(r). The emission limit applies at all time including startup and shutdown. <span style="border: 1px solid black; padding: 2px;">E</span> | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 19         | SO <sub>3</sub> and H <sub>2</sub> SO <sub>4</sub> , as converted and expressed as H <sub>2</sub> SO <sub>4</sub> ≤ 10 mg/M <sup>3</sup> maximum allowable per combustor at standard conditions. The emission limit applies at all time including startup and shutdown. N.J.A.C. 7:27-7.2 | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 20         | SO <sub>3</sub> and H <sub>2</sub> SO <sub>4</sub> , as converted and expressed as H <sub>2</sub> SO <sub>4</sub> ≤ 350 lb/hr maximum allowable per combustor in any 60-minute period, based on the calculation procedure at N.J.A.C. 7:27-7.2(r). The emission limit                     | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|--|--|---|------------------------------|----------------|----|
|                     |            |  |  |   |                              | Yes            | No |
| U1, OS Sum          | 21         | SO <sub>3</sub> and H <sub>2</sub> SO <sub>4</sub> , as converted and expressed as H <sub>2</sub> SO <sub>4</sub> ≤ 700 lbs/hr maximum allowable per combustor at any instant, based on the calculation procedure at N.J.A.C. 7:27-7.2(f). The emission limit applies at all times including | None   | None  | None                         | ✓              |    |
| U1, OS Sum          | 22         | Sulfur Content in Fuel ≤ 500 Parts per Million. No person shall use fuel that contains sulfur in excess of the applicable parts per million by weight set forth in N.J.A.C. 7:27-9 Table 1B (effective July 1,   | Other: Monitored by review of supplier certification showing sulfur content on each change of supplier or upon change of formulation.[N.J.A.C. 7:27-22.16(o)]. | Other: Recordkeeping by supplier certification showing fuel sulfur content with each change of supplier or upon change of formulation.[N.J.A.C. 7:27-22.16(o)]. | None                         | ✓              |    |

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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, OS Sum          | 23         | Sulfur Content in Fuel $\leq 15$ Parts per Million. No person shall use fuel that contains sulfur in excess of the applicable parts per million by weight set forth in N.J.A.C. 7:27-9 Table 1B (effective July 1, 2016) for Zone 3 (Camden) | Other: Monitored by review of supplier certification showing sulfur content on each change of supplier or upon change of formulation. (N.J.A.C. 7:27-22.16(e)). | Other: Recordkeeping by supplier certification showing fuel sulfur content with each change of supplier or upon change of formulation. (N.J.A.C. 7:27-22.16(e)). | None                         | ✓              |    |
| U1, OS Sum          | 24         | Fuel stored in New Jersey that met the applicable maximum sulfur content standard of Tables 1A or 1B of N.J.A.C. 7:27-9.2 at the time the fuel was stored in New Jersey may be stored, offered for sale, sold.                               | None  | None   | None                         | ✓              |    |

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|---------------------|------------|---|---|--|---|----------------|----|
|                     |            |   |   |  |   | Yes            | No |
| U1, OS Sum          | 25         | SO <sub>2</sub> ≤ 1.2 lb/MMBtu gross heat input determined as a 30-day rolling average. No person shall expend or reconstruct an existing solid fuel-fired steam generating unit or construct a new solid fuel-fired steam generating unit having a rated | SO <sub>2</sub> : Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]  | SO <sub>2</sub> : Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]                        | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding calendar quarter (the calendar quarters begin on January 1 | ✓              |    |
| U1, OS Sum          | 26         | Particulate Emissions ≤ 0.1 gr/dscf @ 12% CO <sub>2</sub> maximum allowable (including ash, excluding the contribution of auxiliary fuel) for each combustor. The emission limit applies at all time including startup and                                | Particulate Emissions: Monitored by stack emission testing prior to permit renewal, based on the average of three Department validated stack test runs. See stack testing requirement, 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 requirement, OS Summary. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirement, OS Summary. [N.J.A.C. 7:27-22.16(o)]  | ✓              |    |

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|---------------------|------------|--|------------------------|--|------------------------------|----------------|----|
|                     |            |  |                        |  |                              | Yes            | No |
| U1, OS Sum          | 27         | Opacity $\leq$ 1 Ringelmann Smoke Chart at all times including startup and shutdown, except for emissions of greater than Number 2 on the Ringelmann chart for a period of not longer than three consecutive minutes.<br>NY J.A.C. 7:27-11.3(b)(2)(ii) | None                   | Other: All smoke test data shall be recorded in a permanent log at such time intervals as specified by the Department. Data shall be maintained for a period of not less than one year and shall be available for review by the Department IN J.A.C. | None                         | ✓              |    |
| U1, OS Sum          | 28         | The provisions of 7:27-11.3(b)(2) shall not apply to: i. Smoke emitted during the building of a new fire, the shade or appearance of which is not greater than Number 2 of the Ringelmann smoke chart  | None                   | None   | None                         | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement | In Compliance? |    |
|---------------------|------------|--|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |  |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 29         | Particulate Emissions: No person shall cause, suffer, allow or permit the emission of particles of unburned waste or ash from any common incinerator or from any special incinerator which are individually large enough to be visible while | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 30         | Odor: No person shall construct, install, use or cause to be used any common incinerator or any special incinerator which will result in odors being detectable by sense of smell in any area of human use or occupancy.                     | None                   | None                      | None                         | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement | In Compliance? |    |
|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 31         | Any person responsible for the use of an existing incinerator shall upon request of the Department provide such sampling facilities and testing facilities exclusive of instruments and sensing devices as may be necessary for the Department. | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 32         | No person shall use or cause to be used any incinerator unless all components connected, or attached to, or serving the incinerator, including control apparatus are functioning properly and are in use, in <sup>+</sup>                       | None                   | None                      | None                         | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement  | Recordkeeping Requirement   | Submittal/Action Requirement  | In Compliance? |    |
|---------------------|------------|---|---|---|---|----------------|----|
|                     |            |   |   |   |   | Yes            | No |
| U1, OS Sum          | 33         | VOC (Total) $\leq$ 3.5 lb/hr. Maximum uncontrolled emission rate from each municipal solid waste combustor, based on the Table 16A at N.J.A.C. 16:16. This limit applies at all times, including startup and shutdown in J.A.C. | VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three 1-hour tests Refer to VOC stack testing requirement in U1 OSO, except that compliance with this requirement is based on any | VOC (Total): Recordkeeping by stack test results prior to permit expiration date Refer to VOC stack testing requirement in U1 OSO. Stack testing reports shall be maintained on site for a period of not less than five years. N.J.A.C. | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. The permittee shall submit a report on the analysis conducted in accordance with N.J.A.C. 7:27-16.16(g)(1)(ii). In addition to the | ✓              |    |
| U1, OS Sum          | 34         | NOx (Total) $\leq$ 150 ppmvd @ 7% O2 based on a calendar day average on and after May 1, 2011, if compliance is achieved by installing a new NOx air pollution control system on an existing MSW incinerator or                 | NOx (Total): Monitored by continuous emission monitoring system continuously, based on one calendar day Valid Data Capture Requirement: in order for a compliance averaging period to be valid, it  | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-19.12]   | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR); Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1,                         | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement   | Recordkeeping Requirement  | Submittal/Action Requirement  | In Compliance?                      |                          |
|---------------------|------------|---|--|--|---|-------------------------------------|--------------------------|
|                     |            |   |  |  |   | Yes                                 | No                       |
| U1, OS Sum          | 35         | owner or operator of an MSW incinerator of any size shall operate the MSW incinerator in accordance with provisions specified in either (a) 1 or 2 below. Compliance with this standard shall be measured pursuant to (b) below. <span style="float: right;">+</span> | Other: See stack testing requirements in U1 OSO. [N.J.A.C. 7:27-27.4(e)].          | Other: See stack testing requirements in U1 OSO. [N.J.A.C. 7:27-22.16(e)]. | Other (provide description):<br>As per the approved schedule See stack test requirements at OSO. [N.J.A.C. 7:27-22.16(o)] | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 36         | The owner or operator of a MSW incinerator that is demonstrating compliance with the mercury emission standard of N.J.A.C. 7:27-27.4(a)1 shall conduct stack emission testing every quarter to measure mercury in <span style="float: right;">+</span>                | Other: See stack testing requirements for mercury of OSO. [N.J.A.C. 7:27-27.4(c)]. | Other: See stack testing requirements at OSO. [N.J.A.C. 7:27-22.16(o)].    | Other (provide description):<br>As per the approved schedule See stack test requirements at OSO. [N.J.A.C. 7:27-22.16(o)] | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|---------------------|------------|---|--|--|---|----------------|----|
|                     |            |   |  |  |   | Yes            | No |
| U1, OS Sum          | 37         | Notwithstanding the provisions of (b) above, any owner or operator who achieves and maintains compliance with (a) above, for all applicable incinerators located at a facility, during eight consecutive quarters, may reduce the frequency of stack testing. | Other: See stack testing requirement at OS Summary (N.J.A.C. 7:27-27.4 (d)). | Other: See stack testing requirement at OS Summary (N.J.A.C. 7:27-27.4 (e)). | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirement at OS Summary. (N.J.A.C. 7:27-27.4 (e)) | ✓              |    |
| U1, OS Sum          | 38         | Mercury Emissions: The owner or operator of any MSW incinerator that has a reagent based mercury emission control system shall operate each MSW incinerator at, or above, the optimized reagent feed rate established.  | None   | None   | None  | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 39         | Any owner or operator of a MSW incinerator that submits to the Department a report of compliance testing, including all test runs for a MSW incinerator shall have such report reviewed prior to submission and certified by a registered <input checked="" type="checkbox"/> | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 40         | Any owner or operator of a MSW incinerator shall maintain at the facility a complete record, including all compliance test reports, of all compliance testing, including all test runs, conducted at the <input checked="" type="checkbox"/>                                  | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 41         | Any owner or operator of a MSW incinerator who submits to the Department a report of compliance testing, including all test runs, shall certify that report. (N.J.A.C. 7:27-27.9(f))                            | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 42         | The owner or operator shall make any record made pursuant to N.J.A.C. 7:27-27.9(e) available to the Department, or its authorized representatives, for inspection for a period of five years after the date the | None                   | None                      | None                         | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement   | In Compliance? |    |
|---------------------|------------|---|------------------------|---------------------------|--|----------------|----|
|                     |            |   |                        |                           |  | Yes            | No |
| U1, OS Sum          | 43         | For each unit, continuous monitors and recorders shall be installed, calibrated, tested and operated to measure and record the opacity of the stack gas and emission concentrations of carbon monoxide, oxygen, nitrogen oxides and sulfur dioxide. | None                   | None                      | None   | ✓              |    |
| U1, OS Sum          | 44         | Any changes to the CEMS required under this operating permit must be approved by the Department. [N.J.A.C. 7:27-22.16(a)]   | None                   | None                      | Other (provide description):<br>As per the approved schedule Submit for Department review and approval , a proposal for any changes to the CEMS required by this operating permit prior to initiating such | ✓              |    |

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|---------------------|------------|--|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |  |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 45         | A minimum of ninety (90) percent data availability per calendar quarter, based on source operating hours, is required for the continuous emission monitoring systems from preconstruction permit. [N.J.A.C. 7:27-22.16(a)] | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 46         | A minimum of ninety-five (95) percent data availability per calendar quarter, based on source operating hours, is required for the continuous opacity monitoring systems. [N.J.A.C. 7:27-22.16(e)]                         | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|--|--|--|----------------|----|
|                     |            |   |  |  |  | Yes            | No |
| U1, OS sum          | 47         | The owner or operator shall develop a QA/QC plan for all CEMS/SOMS required by this permit prepared in accordance with the NJDEP Technical Manual 1005 posted on the AQP webpage at <a href="http://www.state.nj.us/dep/aqp">http://www.state.nj.us/dep/aqp</a> in N.J.A.C. | Other: The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis. [N.J.A.C. 7:27-22.16(f)]. | Other: Maintain readily accessible records of the QA/QC plan including QA data and quarterly reports. [N.J.A.C. 7:27-22.16(g)].  | None   | ✓              |    |
| U1, OS Sum          | 48         | Visible emissions shall not exceed an average of 10% opacity in any 6-minute block period from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]   | Monitored by continuous opacity monitor continuously, based on 6 minute blocks. [N.J.A.C. 7:27-22.16(e)]                     | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 49         | Annual emission limit from preconstruction permit for each combustor TSP ≤ 14.8 tons/yr. [N.J.A.C. 7:27-22.16 (e)]                    | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 50         | PM-10 (Total) ≤ 86.9 tons/yr. Total annual emission limit for all 3 combustors, from modification BOP060006. [N.J.A.C. 7:27-22.16(a)] | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|--|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |  |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 51         | SO <sub>2</sub> ≤ 71 tons/yr. Annual emission limit from operating permit application for each combustor. [N.J.A.C. 7:27-22.16(e)]                   | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 52         | NO <sub>x</sub> (Total) ≤ 153 tons/yr. Annual emission limit from preconstruction permit for each combustor from BOP100003. [N.J.A.C. 7:27-22.16(e)] | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|--|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |  |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 53         | NOx (Total) ≤ 459 tons/yr. Annual emission limit from the NOx Control Plan for all three units combined. [N.J.A.C. 7:27-19.13]       | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 54         | Carbon monoxide ≤ 62.1 tons/yr. Annual emission limit from operating permit application for each combustor. [N.J.A.C. 7:27-22.16(a)] | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 55         | VOC (Total) $\leq 7.07$ tons/yr. Annual emission limit from operating permit application for each combustor. [N.J.A.C. 7:27-22.16(a)] | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 56         | Ammonia $\leq 20$ tons/yr. Annual emission limit for each combustor from BOP100003. [N.J.A.C. 7:27-22.16(a)]                          | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|-------------------------------------|--------------------------|
|                     |            |   |                        |                           |                              | Yes                                 | No                       |
| U1, OS Sum          | 57         | Lead Emissions $\leq 0.33$ tons/yr. Annual emission limit from preconstruction permit for each combustor. [N.J.A.C. 7:27-22.16(e)]      | None                   | None                      | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 58         | HCl Emissions $\leq 40.5$ tons/yr. Annual emission limit from operating permit application for each combustor. [N.J.A.C. 7:27-22.16(a)] | None                   | None                      | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|---------------------|------------|--|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |  |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 59         | Annual emission limit from preconstruction permit for each combustor, Sulfuric Acid emissions <= 10.7 tpy. [N.J.A.C. 7:27-22.16(e)]  | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 60         | Mercury Emissions <= 0.0203 tons/yr.<br>Annual emission limit from the operating permit application for each combustor based on the limit of 28 ug/DSCM for each unit.<br>[N.J.A.C. 7:27-22.16(a)] | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|-------------------------------------|--------------------------|
|                     |            |   |                        |                           |                              | Yes                                 | No                       |
| U1, OS Sum          | 61         | Hydrogen fluoride $\leq 1.57$ tons/yr. Annual emission limit from preconstruction permit for each combustor. [N.J.A.C. 7:27-22.16(e)]               | None                   | None                      | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 62         | Annual emission limit from preconstruction permit for each combustor, Polycyclic Aromatic Hydrocarbons $\leq .06$ tons/yr. [N.J.A.C. 7:27-22.16(e)] | None                   | None                      | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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Section 4  
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Instructions  
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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement | In Compliance? |    |
|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 63         | TCDD Emissions (2,3,7,8-) ≤ 0.0000037 tons/yr. Annual emission limit from preconstruction permit for each combustor. [N.J.A.C. 7:27-22.16(e)] | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 64         | Arsenic Emissions ≤ 0.0022 tons/yr. Annual emission limit from preconstruction permit for each combustor. [N.J.A.C. 7:27-22.16(e)]            | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 65         | Cadmium Emissions $\leq$ 0.0144 tons/yr. Annual emission limit from preconstruction permit for each combustor. [N.J.A.C. 7:27-22.16(e)]   | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 66         | Any individual hazardous air pollutant emissions, not specifically listed in this permit, are below the reporting thresholds listed in N.J.A.C. 7:27-22. [N.J.A.C. 7:27-22.16(a)] | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|--|--|------------------------------|----------------|----|
|                     |            |   |  |  |                              | Yes            | No |
| U1, OS Sum          | 67         | Upon start-up of a unit, no solid waste may be introduced in to the municipal solid waste combustor unless the temperature 0.3 seconds downstream of secondary air injection is 1500 degree Fahrenheit or higher. <b>Compliance with this [ ]</b> | Monitored by temperature instrument upon occurrence of event based on the average of the two closest readings from the three thermocouples. [N.J.A.C. 7:27-22.16(o)]   | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(o)] <b>[+]</b> | None                         | ✓              |    |
| U1, OS Sum          | 68         | Within one hour after waste has been introduced into a municipal solid waste combustor, the temperature one second downstream of secondary air injection must be no less than 1500 degree Fahrenheit. <b>[+]</b>                                  | Monitored by temperature instrument upon occurrence of event based on the average from the two closest readings from the three thermocouples. [N.J.A.C. 7:27-22.16(o)] | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(o)] <b>[+]</b> | None                         | ✓              |    |

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|---------------------|------------|---|--|---|------------------------------|----------------|----|
|                     |            |   |  |   |                              | Yes            | No |
| U1, OS Sum          | 69         | The temperature one second downstream of secondary air injection at which the municipal solid waste combustor must operate at least 90% of the time when waste is being burned, must be no less than 920 degree fahrenheit average ±5 | Monitored by temperature instrument continuously based on the average from the two closest readings from the three thermocouples. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | None                         | ✓              |    |
| U1, OS Sum          | 70         | The auxiliary burners shall operate automatically if the temperature one second downstream of secondary air injection drops below 1550 degree fahrenheit during the combustion of waste. Compliance with this                         | Monitored by temperature instrument continuously based on the average from the two closest readings from the three thermocouples. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | None                         | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement  | Recordkeeping Requirement   | Submittal/Action Requirement  | In Compliance? |    |
|---------------------|------------|---|---|---|---|----------------|----|
|                     |            |   |   |   |   | Yes            | No |
| U1, OS Sum          | 71         | Oxygen $\geq 3\%$ by volume average measured on a dry basis in the flue gas at the municipal solid waste combustor exit of each unit for any 5-minute block average from precombustion permit. [N.J.A.C. 7:27-22.16(e)]         | Oxygen: Monitored by continuous emission monitor continuously, based on 5-minute blocks. [N.J.A.C. 7:27-22.16(e)] | Oxygen: Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, | ✓              |    |
| U1, OS Sum          | 72         | A low oxygen incident alone shall not be a basis for violating the immediately preceding condition.. However, the following shall be considered violations and subject to enforcement action:<br>i. Failure to cease waste feed | None  | None  | None  | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement   | Recordkeeping Requirement   | Submittal/Action Requirement | In Compliance?                      |                          |
|---------------------|------------|---|--|---|------------------------------|-------------------------------------|--------------------------|
|                     |            |   |  |   |                              | Yes                                 | No                       |
| U1, OS Sum          | 73         | The permittee shall cease the waste charging to the affected municipal solid waste combustor within five minutes of the low oxygen incident when the oxygen level in the flue gas at the boiler exit drops below 3.0% by volume. [N.J.A.C. 7:27-22.16(e)] | Other: oxygen monitoring continuously and monitoring of feed ram upon occurrence of low oxygen event [N.J.A.C. 7:27-22.16(e)]. | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 74         | Temperature > 800 degrees F<br>The temperature at the inlet of the municipal solid waste combustor convection section before solid waste may be introduced into the furnace. [N.J.A.C. 7:27-22.16(e)]   | Temperature: Monitored by parametric monitoring system continuously. [N.J.A.C. 7:27-22.16(e)]                                  | Temperature: Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site                         | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement   | Recordkeeping Requirement   | Submittal/Action Requirement | In Compliance? |    |
|---------------------|------------|--|--|---|------------------------------|----------------|----|
|                     |            |  |  |   |                              | Yes            | No |
| U1, OS Sum          | 75         | The temperature of the steam from each municipal solid waste combustor shall be continuously monitored and recorded.. [N.J.A.C. 7:27-22.16(e)] | Monitored by parametric monitoring system continuously. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | None                         | ✓              |    |
| U1, OS Sum          | 76         | The pressures of steam from each municipal solid waste combustor shall be continuously monitored and recorded. [N.J.A.C. 7:27-22.16(e)]        | Monitored by parametric monitoring system continuously. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 77         | To obtain start-up/shutdown allowances, the facility must maintain the equipment, operate the equipment properly, take steps to minimize emissions during start-up/shutdown and malfunction periods, identify and take steps to prevent malfunctions. | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 78         | Start-up Period: commences when the affected incinerator begins the combustion of municipal waste, including continuous, semicontinuous, or batch feeding of municipal solid waste to the furnace. The  | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|--|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |  |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 79         | The shutdown period commences when the feeding of municipal solid waste to the hopper is terminated as a result of a scheduled shutdown or malfunction. The shutdown period ends when municipal solid waste is no longer combusting.     | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 80         | WARM-UP ALLOWANCES - The CO emission limits specified in this permit (see U1 OS1, OS2 and OS3) shall not apply during periods, including warm-up periods, when no waste is burned and fossil fuel is <input checked="" type="checkbox"/> | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|--|---|---|------------------------------|-------------------------------------|--------------------------|
|                     |            |  |   |   |                              | Yes                                 | No                       |
| U1, OS Sum          | 81         | Failure to maintain at least 1500 degrees F one second after secondary air injection except as provided for under permit conditions shall require cessation of waste charging to the affected combustor. Also if all three permanent | Other: monitor feed ram upon occurrence of event [N.J.A.C. 7:27-22.16(e)].                | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event in a log book. [N.J.A.C. 7:27-22.16(e)]                             | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 82         | Maximum annual hours of operation for each unit. Hours of Operation <= 8,256 hr/yr. [N.J.A.C. 7:27-22.16(e)]   | Hours of Operation: Monitored by hour/time monitor continuously. [N.J.A.C. 7:27-22.16(e)] | Hours of Operation: manual logging of parameter or storing data in a computer data system daily in a log book or readily accessible computer memory. The log shall include specific | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|---------------------|------------|---|--|--|------------------------------|----------------|----|
|                     |            |   |  |  |                              | Yes            | No |
| U1, OS Sum          | 83         | Maximum Gross Heat Input $\leq 154.6$ MMBTU/hr (HHV). Gross Heat Input rate of each MSW combustor from presubmission permit. [N.J.A.C. 7:27-22.16(e)]   | None   | Maximum Gross Heat Input: Recordkeeping by documentation of burner rated heat input. [N.J.A.C. 7:27-22.16(e)]. | None                         | ✓              |    |
| U1, OS Sum          | 84         | Primary fuel is limited to solid waste, specifically the following solid waste materials, as defined by waste ID numbers and defined in N.J.A.C. 7:26-2.13(g):<br>I.D. Description<br>10. Municipal Waste <input checked="" type="checkbox"/> | Other: monitor waste feed per delivery. [N.J.A.C. 7:27-22.16 (o)]. | Other: record waste ID received per delivery. [N.J.A.C. 7:27-22.16 (o)].                                       | None                         | ✓              |    |

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|---------------------|------------|---|---|---|------------------------------|----------------|----|
|                     |            |   |   |   |                              | Yes            | No |
| U1, OS Sum          | 85         | The following solid and liquid waste materials, as identified by waste ID numbers and defined in N.J.A.C. 7:26-2.13 (g) and (h), and the following regulated medical waste classes as defined in N.J.A.C. 7:26-3A.6(a) are specifically | Other: Monitor waste feed per delivery by review of NJDEP Waste Origin & Disposal Form at the scale house, visual inspection of unlined contents at tipping floor, and visual inspection of tipping process for unlined | Other: record vehicle ID, waste type and ID, and origin into computer data base. Keep records of all Waste Rejection Diversion Forms generated for prohibited wastes on site. [N.J.A.C. 7:27-22.16(o)]. | None                         | ✓              |    |
| U1, OS Sum          | 86         | The facility shall not accept any beryllium containing waste as defined in 40CFR 61.31(g) [N.J.A.C. 7:27-22.16 (e)]   | Other: monitor waste per delivery [N.J.A.C. 7:27-22.16(o)].   | Other: waste manifests per delivery. [N.J.A.C. 7:27-22.16 (o)].   | None                         | ✓              |    |

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|---------------------|------------|--|---|---|------------------------------|----------------|----|
|                     |            |  |   |   |                              | Yes            | No |
| U1, OS Sum          | 87         | Secondary fuel is limited to Natural Gas or No.2 distillate fuel oil, from preconstruction permit. [N.J.A.C. 7:27-22.16 (e)]                           |   |   | None                         | ✓              |    |
| U1, OS Sum          | 88         | Natural Gas Usage <= 54.4 MMft <sup>3</sup> /yr is maximum annual consumption of each combustor, from preconstruction permit. [N.J.A.C. 7:27-22.16(e)] | Natural Gas Usage: Monitored by gas use totalizing meter continuously, based on a consecutive 365 day period (rolling 1 day basis). [N.J.A.C. 7:27-22.16 (o)] | Natural Gas Usage: Recordkeeping by strip chart or data acquisition (DAS) system continuously cumulative total based on 12 consecutive months. [N.J.A.C. 7:27-22.16(o)] | None                         | ✓              |    |

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|---------------------|------------|--|--|---|------------------------------|----------------|----|
|                     |            |  |  |   |                              | Yes            | No |
| U1, OS Sum          | 89         | The Base Acid Neutralization Scrubbers (SD1.3.5) shall be operated at all times when the municipal solid waste incinerators are being operated and in accordance with both the manufacturers specifications and the in accordance with all | None   | None  | None                         | ✓              |    |
| U1, OS Sum          | 90         | Scrubbing Medium Flow Rate >= 5 and Scrubbing Medium Flow Rate <= 20 gal/min for each scrubber. [N.J.A.C. 7:27-22.16(a)]   | Scrubbing Medium Flow Rate: Monitored by parametric monitoring system continuously. [N.J.A.C. 7:27-22.16(e)] | Scrubbing Medium Flow Rate: Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection | None                         | ✓              |    |

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|---------------------|------------|---|--|---|------------------------------|----------------|----|
|                     |            |   |  |   |                              | Yes            | No |
| U1, OS Sum          | 91         | The specific gravity of the of the lime slurry shall be in the range of 1.066 to 1.135. [N.J.A.C. 7:27-22.16(e)]  | Monitored by grab sampling once per shift during operation. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by manual logging of parameter or storing data in a computer data system once per shift during operation. [N.J.A.C. 7:27-22.16(e)]  | None                         | ✓              |    |
| U1, OS Sum          | 92         | The electrostatic precipitators on each municipal solid waste combustor shall be in operation at all times when the combustors are operating. They shall be operating in accordance with all manufacturer's | Monitored by parametric monitoring system continuously. [N.J.A.C. 7:27-22.16(a)]     | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(a)] | None                         | ✓              |    |

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|---------------------|------------|--|--|---|------------------------------|-------------------------------------|--------------------------|
|                     |            |  |  |   |                              | Yes                                 | No                       |
| U1, OS Sum          | 93         | For each ESP, the secondary voltage and secondary current on each field shall be monitored to insure operation in accordance with the manufacturers specifications. [N.J.A.C. 7:27-22.16(e)]                               | Monitored by parametric monitoring system continuously. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 94         | The owner or operator shall, in accordance with N.J.A.C. 7:27-27.4 (i), (j), and (k) conduct optimization tests on any single unit to determine the optimized activated carbon feed rate for mercury emission control. The | None   | Other: Keep results of optimization tests on site. [N.J.A.C. 7:27-22.16(o)].  | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|---------------------|------------|--|---|---|------------------------------|----------------|----|
|                     |            |  |   |   |                              | Yes            | No |
| U1, OS Sum          | 95         | The rate of carbon injection through CD 11,12,13 shall be greater than or equal to 222.4 lb over an 8-hour block average of the rate established by the Department after the most recent stack tests. [N.J.A.C. 7:27-22.16(a)] | Other: monitor carbon feed auger speed shall be continuously monitored. [N.J.A.C. 7:27-22.16(e)]. | Recordkeeping by strip chart or data acquisition (DAS) system continuously of carbon auger speed. Continuously recorded data can be printed and stored in a permanent form suitable for submittal of on-site inspection. [N.J.A.C.] | None                         | ✓              |    |
| U1, OS Sum          | 96         | The carbon feed auger speed for each consecutive eight hour period (12 to 8, 8 to 12, etc) must be maintained at or above the speed that has been determined, by actual measurement during calibration, to deliver             | Other: by weekly calibration and calculation. [N.J.A.C. 7:27-22.16(e)].                           | Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation of calibration calculation and any adjustment of auger speed that was made in a log book.                         | None                         | ✓              |    |

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|---------------------|------------|---|--|--|------------------------------|----------------|----|
|                     |            |   |  |  |                              | Yes            | No |
| U1, OS Sum          | 97         | The operation below the minimum allowable carbon feed rate as indicated by the auger speed is a permit violation unless within three hours the condition that causes the excursion is corrected, the proper rate is restored or the waste | Other: monitor auger speed continuously (N.J.A.C. 7:27-22.16(e)).                        | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event cumulative excursion time below minimum carbon feed rate in a logbook. (N.J.A.C. 7:27-22.16(f))          | None                         | ✓              |    |
| U1, OS Sum          | 98         | The carbon feed auger speed, versus actual carbon delivery rate, shall be calibrated weekly by actual measurements (collecting and weighing the carbon delivered by the feeder) for each unit.<br>a. The maximum time                     | Monitored by gravimetric monitoring each week during operation. (N.J.A.C. 7:27-22.16(o)) | Recordkeeping by manual logging of parameter or storing data in a computer data system each week during operation of each calibration calculation and any auger speed adjustment in a log book. (N.J.A.C. 7:27-22.16(f)) | None                         | ✓              |    |

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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, OS Sum          | 99         | The total annual actual quantity of carbon used at the facility must equal or exceed the minimum allowable pounds per hour multiplied by the total hours of waste feed to all three units during the quarter. [N.J.A.C. 7:27-22.16(a)] | Monitored by calculations annually based on a quarterly basis. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation to include the total hours of waste feed to each unit, the total combined hours, total minimum combined quantity | None                         | ✓              |    |
| U1, OS Sum          | 100        | Written records shall be kept for each unit to accurately document the date, time, and quantity of activated carbon bulk deliveries and the remaining storage silo inventory difference. [N.J.A.C. 7:27-22.16(e)]                      | None  | Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Written records shall be kept to accurately maintain the date and time activated carbon deliveries                 | None                         | ✓              |    |

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|---------------------|------------|--|--|---|--|----------------|----|
|                     |            |  |  |   |  | Yes            | No |
| U1, OS Sum          | 101        | The SNCR system on each municipal solid waste combustor shall be in operation when the combustors are operating at or above 40 percent steam load and when necessary to achieve compliance. They shall be operating in accordance with [E] | Monitored by parametric monitoring system continuously. [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by manual logging of parameter or storing data in a computer data system continuously. [N.J.A.C. 7:27-22.16(e)] | None   | <b>✓</b>       |    |
| U1, OS Sum          | 102        | For each SNCR, the permittee shall conduct optimization tests (once initially) to determine both the performance of the SNCR system and the optimized urea injection rate vs NOx removal efficiency. [E]                                   | None   | Other: Maintain a copy of the optimization study on site for NJDEP/EPA review. [N.J.A.C. 7:27-22.16(o)].                      | Submit a performance test protocol: As per the approved schedule. Submit the performance test protocol at least 45 days prior to the desired test date. Conduct optimization test prior to March 31, 2011. [E] | <b>✓</b>       |    |

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|---------------------|------------|---|---|---|--|----------------|----|
|                     |            |   |   |   |  | Yes            | No |
| U1, OS Sum          | 103        | Flowrate $\geq 0.1$ and Flowrate $\leq 15$ gal/hr expected flow rate of NOxOUT Urea reagent pending results of optimization testing from SOP1000003. [N.J.A.C. 7:27-22.16(a)] | Flowrate: Monitored by material feedflow monitoring continuously. The flow of SNCR reagent entering each municipal solid waste combustor shall be continuously monitored and recorded. [N.J.A.C. 7:27-22.16(e)] | Flowrate: Recordkeeping by strip chart or data acquisition (DAS) system continuously. The flow of SNCR reagent entering each municipal solid waste combustor shall be continuously monitored and recorded. [N.J.A.C. 7:27-22.16(e)] | None   | ✓              |    |
| U1, OS Sum          | 104        | Ammonia Slip $< 20$ ppm @ 7% O <sub>2</sub> for the selective non-catalytic reduction system. [N.J.A.C. 7:27-22.16(a)]  | Ammonia Slip: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1, OS Summary. [N.J.A.C. 7:27-22.16(o)]                              | Ammonia Slip: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1, OS Summary. [N.J.A.C. 7:27-22.16(o)]  | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in U1, OS0. [N.J.A.C. 7:27-22.16(e)] | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement   | Monitoring Requirement | Recordkeeping Requirement   | Submission/Action Requirement | In Compliance? |    |
|---------------------|------------|--|------------------------|---|-------------------------------|----------------|----|
|                     |            |  |                        |   |                               | Yes            | No |
| U1, OS Sum          | 105        | The owner/operator of a municipal waste combustor must comply with the MWC operating practice requirements codified under 40 CFR 60.53b (b) and (c) of NSPS Subpart Eb. [40 CFR 62.14104]          | None                   | Other: The facility shall maintain the following records for a period of five years:<br>Records showing the names of the municipal waste combustor chief facility operator, shift supervisors and control room operators who have been fully certified or | None                          | ✓              |    |
| U1, Os Sum          | 106        | Each chief facility operator and shift supervisor must obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers (QRO-1-1994) or a | None                   | Other: The facility shall maintain the following records for a period of five years:<br>Records showing the names of the municipal waste combustor chief facility operator, shift supervisors and control room operators who                              | None                          | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 107        | Each chief facility operator and shift supervisor must complete full certification or must have scheduled a full certification exam with either the American Society of Mechanical Engineers (ASME) or a State certification program. <input checked="" type="checkbox"/> | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 108        | The facility must not be operated unless one of the following persons is on duty:<br>- a fully certified chief facility operator;<br>- a provisionally certified chief facility operator who is scheduled to take the full <input checked="" type="checkbox"/>            | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|-------------------------------------|----|
|                     |            |   |                        |                           |                              | Yes                                 | No |
| U1, OS Sum          | 109        | When the certified chief facility operator and certified shift supervisor are both off site for 12 hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the | None                   | None                      | None                         | <input checked="" type="checkbox"/> |    |
| U1, OS Sum          | 110        | When the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room                | None                   | None                      | None                         | <input checked="" type="checkbox"/> |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 111        | When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief | None                   | None                      | None                         | ✓              |    |
| U1, OS Sum          | 112        | A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of                                      | None                   | None                      | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|--|---|----------------|----|
|                     |            |   |                        |  |   | Yes            | No |
| U1, OS Sum          | 113        | The facility shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following elements of its municipal waste combustor unit operation:<br>- A summary of the applicable standards | None                   | Other: The operating manual must be available for inspection by USEPA or the Department upon request. Any information provided to the Department is available for inspection by the public upon request under the Open Public Records Act. | Submit an Annual Compliance Certification: Annually by the Responsible Official to the Department that the annual update has been completed to his satisfaction. [N.J.A.C. 7:27-22.16(a)] | ✓              |    |
| U1, OS Sum          | 114        | The facility must establish a training program to review the operating manual according to the schedule specified below with each person who has responsibilities affecting the operation of the facility.                                    | None                   | Other: The facility shall maintain records showing the names of persons who have completed a review of the operating manual including the date of initial review and subsequent annual reviews. This is based on                           | None  | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement | Recordkeeping Requirement   | Submittal/Action Requirement   | In Compliance? |    |
|---------------------|------------|---|------------------------|---|--|----------------|----|
|                     |            |   |                        |   |  | Yes            | No |
| U1, OS Sum          | 115        | The facility shall submit a semi-annual report which shall include the following:<br>- Information recorded which indicates the average sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level | None                   | Other: All semi-annual reports must be maintained on site as a paper copy for a minimum of 5 years. This is as stated at 40 CFR 60.59b(j), [40 CFR 60.39b(a)] & [40 CFR 62.14109(a)]. | Submit a report: As per the approved schedule that follows. The report for the first half of the calendar year must be submitted by August 1 of the same year. The report for the second half of the calendar year must be | ✓              |    |
| U1, OS Sum          | 116        | ANNUAL REPORT:<br>The annual report shall include the following:<br>- A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride and fugitive ash emission                                | None                   | Other: All annual reports must be maintained on site as a paper copy for a minimum of 5 years. This is as stated at 40 CFR 60.59b(j), [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)].      | Submit a report: As per the approved schedule that follows. The report for the first half of the calendar year must be submitted by August 1 of the same year. The report for the second half of the                       | ✓              |    |

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| Subject Item U / BP | OS / Ref # | Applicable Requirement  | Monitoring Requirement | Recordkeeping Requirement  | Submittal/Action Requirement   | In Compliance?                      |                          |
|---------------------|------------|---|------------------------|--|--|-------------------------------------|--------------------------|
|                     |            |   |                        |  |  | Yes                                 | No                       |
| U1, OS Sum          | 117        | <b>ANNUAL REPORT:</b><br>-The facility shall also provide a summary report with the same data specified in the semi-annual reports for the preceding year in order to provide the Administrator with a summary of the performance of the facility | None                   | <del>Other: All annual reports must be maintained on site as a paper copy for a minimum of 5 years. This is as stated at 40 CFR 60.59b(i), [40 CFR 60.39b(e)] &amp; [40 CFR 62.14109</del>                             | Submit a report: As per the approved schedule that follows. The report for the first half of the calendar year must be submitted by August 1 of the same year. The report for the second half of the calendar year must be | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 118        | REPORTING/RECORDKEEPING:<br>The facility shall maintain the following records for a period of at least five years: Identification of the calendar dates when any of the average emission  | None                   | Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k), [40 CFR 60.39b(d)] & [40 CFR | None   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|---------------------|------------|---|------------------------|--|------------------------------|----------------|----|
|                     |            |   |                        |  |                              | Yes            | No |
| U1, OS Sum          | 119        | <b>REPORTING/RECORDKEEPING</b><br>NG:<br>The facility shall maintain the following records for a period of at least five years: Identification of the calendar dates for which the minimum number of hours of the data specified below have not | None                   | Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k). [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)]. | None                         | ✓              |    |
| U1, OS Sum          | 120        | <b>REPORTING/RECORDKEEPING</b><br>NG:<br>The facility shall maintain the following records for a period of at least five years: Identification of each occurrence that sulfur dioxide emissions data, nitrogen                                  | None                   | Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k). [40 CFR 60.39b(d)] & [40 CFR               | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|--|------------------------------|-------------------------------------|--------------------------|
|                     |            |   |                        |  |                              | Yes                                 | No                       |
| U1, OS Sum          | 121        | REPORTING/RECORDKEEPING<br>NG:<br>The facility shall maintain the following records for a period of at least five years: The results of daily drift test and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides and carbon | None                   | Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(h), [40 CFR 60.39b(e)] & [40 CFR 62.14109(a)]. | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| U1, OS Sum          | 122        | REPORTING/RECORDKEEPING<br>NG:<br>The facility shall maintain the following records for a period of at least five years: The test reports documenting the results of all annual performance tests shall be recorded                           | None                   | Other: Maintain records for a period of at least 5 years from the date of record. [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)].   | None                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|---------------------|------------|--|---|---|------------------------------|----------------|----|
|                     |            |  |   |   |                              | Yes            | No |
| U1, OS Sum          | 123        | During operation, the carbon injection system operating parameter (s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must equal or exceed the level established during performance tests for mercury. | Monitored by other method (provide description) at the approved frequency<br>Monitored by carbon feed rate, as required at 40 CFR 60.59b(m)(2), [40 CFR 60.39b(e)] & [40 CFR 62.14109(b)] | Other: The facility shall record the average carbon mass feed rate (in kg/hr or lb/hr) estimated for each hour of operation. This is as required at 40 CFR 60.59b (e)(4)(iii). Also, as required at 40 CFR 60.59b(e)(15), the facility shall record the | None                         | ✓              |    |
| U1, OS Sum          | 124        | The facility shall maintain the following records for a period of at least five years:<br>Identification of the calendar dates when the average carbon mass feed rates as measured by auger speed were less than the hourly                        | Other: Carbon usage is continuously measured by auger speed. [40 CFR 60.39b(d)] & [40 CFR 62.14109(a)].   | Other: Maintain records on paper copy or a computer readable format for a period of at least 5 years from the date of record. This is as stated at 40 CFR 60.59b(d) and 40 CFR 60.59b(k). [40 CFR 60.39b(d)] & [40 CFR                                  | None                         | ✓              |    |

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|---------------------|------------|---|------------------------|---------------------------|------------------------------|----------------|----|
|                     |            |   |                        |                           |                              | Yes            | No |
| U1, OS Sum          | 125        | The standards under 40 CFR 62, Subpart FFF apply at all times except during periods of startup, shutdown, or malfunction.<br>Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence. The startup | None                   | None                      | None                         | ✓              |    |
|                     |            |   |                        |                           |                              |                |    |

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|---|------------|---|---|---|---|----------------|----|
|   |            |   |   |   |   | Yes            | No |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 1          | Particulate Emissions $\leq$ 0.013 gr/dscf @ 7% O <sub>2</sub> in each stack flue for each incinerator except during periods of start up and shut-down, from the preconstruction permit. [N.J.A.C. 7:27-22.16 (e)]                                | Particulate Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 2          | TSP $\leq$ 0.03 gr/dscf @ 7% O <sub>2</sub> in each stack flue for each incinerator including test runs during which incinerator tube rapping is performed except during periods of start up and shut-down, from preconstruction permit. <b>2</b> | TSP: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]                   | TSP: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]                   | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |

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|--|------------|--|---|---|---|----------------|----|
|  |            |  |   |   |   | Yes            | No |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 3          | Particulate matter, $\leq 10\mu\text{m}$ $\leq 0.013 \text{ g/ft}^3$<br>7% O <sub>2</sub> , filterable, in each stack flow except during periods of start up and shut-down. [N.J.A.C. 7:27-22.16(a)] | Particulate matter, $\leq 10\mu\text{m}$ : Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Particulate matter, $\leq 10\mu\text{m}$ : Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 4          | PM-10 (Total) $\leq 7.02 \text{ lb/hr}$ , including both filterable and condensable catches, from BOP060006. [N.J.A.C. 7:27-22.16(a)]  | PM-10 (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]                             | PM-10 (Total): Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]                             | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |

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**Instructions**  
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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 Normal, OS3 Normal, OS5 Normal | 5          | Particulate Emissions $\leq 3.59$ lb/hr from each unit except during periods of start up and shut-down, from the preconstruction permit. [N.J.A.C. 7:27-22.16 (e)]  | Particulate Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]       | Particulate Emissions: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]  | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]                          | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 6          | SO2 $\leq 50$ ppmvd @ 7% O2 average concentration in the stack gas of each unit, as determined by continuous monitoring The 50ppmvd@ 7%O2 concentration limit shall not apply to a unit if the average 3 hr | SO2: Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average, starting and ending on the hour from preconstruction permit. Valid | SO2: Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the | ✓              |    |

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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<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 7          | SO2 ≤= 34.4 lb/hr from each unit except during periods of start up and shut-down, from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]  | SO2: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | SO2: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]           | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 8          | HCl Emissions ≤= 50 ppmvd @ 7% O2 in the stack gas of each unit for any one hour period, except for 1-hour periods during which the average concentration of HCl (ppmv) in the stack gas is less than or equal | HCl Emissions: Monitored by stack emission testing annually, based on each of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]                     | HCl Emissions: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |

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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<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 9          | Hydrogen fluoride $\leq 0.36$ lb/hr from each unit except during periods of start-up and shutdown, from preconstruction permit. [N.J.A.C. 7:27-22.16(e)] | Hydrogen fluoride: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Hydrogen fluoride: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]      | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 10         | Carbon monoxide $\leq 60.2$ lb/hr from each unit except during periods of start-up and shutdown from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]    | Carbon monoxide: Monitored by stack emission testing prior to permit expiration date, based on each of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]   | Carbon monoxide: Recordkeeping by stack test results prior to permit expiration date. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |

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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 Normal, OS3 Normal, OS5 Normal | 11         | Carbon monoxide $\leq 400$ ppmvd @ 7% O <sub>2</sub> average in the stack gas of each unit except during periods of start-up and shutdown, from preconstruction permit. [N.J.A.C. 7:27-22.16(e)] | Carbon monoxide: Monitored by continuous emission monitor continuously, based on a 1 hour block average during operation. [N.J.A.C. 7:27-22.16(e)]   | Carbon monoxide: Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submitted or on-site inspection. [N.J.A.C. 7:27-22.16(e)] | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR); On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 12         | NOx (Total) $\leq 48$ lb/hr from each unit except during periods of start-up and shutdown, from BOP100003. [N.J.A.C. 7:27-19.13] and. [N.J.A.C. 7:27-22.16(e)]                                   | NOx (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | NOx (Total): Recordkeeping by stack test results prior to permit expiration date. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]   | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]   | ✓              |    |

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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 Normal, OS3 Normal, OS5 Normal | 13         | NOx (Total) $\leq 300$ ppmvd corrected to 7% O2 concentration in the flue gas average in the stack gas of each unit except during periods of start-up and shutdown, from preconstruction permit. [N.J.A.C. 7:27-19.13] and, [N.J.A.C. 7:27-19.13] and, [N.J.A.C. 7:27-19.13] | NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average, starting and ending on the hour. Valid Data Capture<br><input checked="" type="checkbox"/> Requirement: in order for a | NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. [N.J.A.C. 7:27-19.13] | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 14         | SO3 and H2SO4, as converted and expressed as H2SO4 $\leq 2.6$ lb/hr from each unit shall except during periods of start-up and shutdown, from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]   | SO3 and H2SO4, as converted and expressed as H2SO4: Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See <input checked="" type="checkbox"/>                                    | SO3 and H2SO4, as converted and expressed as H2SO4: Recordkeeping by stack test results prior to permit expiration date. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]  | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]   | ✓              |    |

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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<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 15         | Ammonia <= 1.62 lb/hr from BOP 1000003.<br>[N.J.A.C. 7:27-22.16(a)]  | Ammonia: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs.<br>See stack test requirements U1 OSO.<br>[N.J.A.C. 7:27-22.16(b)]  | See stack test requirements U1 OSO.<br>Ammonia: Recordkeeping by stack test results upon occurrence of event. [N.J.A.C. 7:27-22.16(b)]               | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] |                |    |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 16         | Lead Emissions <= 0.08 lb/hr from each unit except during periods of start-up and shutdown, from preconstruction permit.<br>[N.J.A.C. 7:27-22.16(e)] | Lead Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Lead Emissions: Recordkeeping by stack test results prior to permit expiration date.<br>See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] |                |    |

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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<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 17         | Mercury Emissions $\leq 0.00$ lb/hr from the preconstruction permit. The Mercury emissions from each MSW combustor, shall comply with either of the two following alternatives, except during periods of start-up and shutdown, from | Mercury Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Mercury Emissions: Recordkeeping by stack test results upon occurrence of event See stack test requirements U1 OS Summary. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 18         | Arsenic Emissions $\leq 0.000525$ lb/hr per combustor except during periods of start-up, shutdown, and malfunction. from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]  | Arsenic Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | Arsenic Emissions: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]       | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |

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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<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 19         | Cadmium Emissions <= 0.0035 lb/hr per combustor except during periods of start-up and shutdown from the preconstruction permit. [N.J.A.C. 7:27-22.16 (e)] | Cadmium Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Cadmium Emissions: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | <b>✓</b>       |    |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 20         | Nickel Emissions <= 0.018 lb/hr per combustor except during periods of start-up and shutdown from the preconstruction permit. [N.J.A.C. 7:27-22.16 (e)]   | Nickel Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]  | Nickel Emissions: Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)]  | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | <b>✓</b>       |    |

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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 Normal, OS3 Normal, OS5 Normal | 21         | VOC (Total) $\leq 3.42$ lb/hr as methane from each unit except during periods of start-up and shutdown self imposed limit from operating permit application. [N.J.A.C. 7:27-22.16(a)]                         | VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See requirements U1 OSO. [N.J.A.C. 7:27-22.16(a)] | VOC (Total): Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(a)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 22         | VOC (Total) $\leq 34$ ppmvd @ 7% O <sub>2</sub> of non-methane hydrocarbons as methane, in the stack gas of each unit except during periods of start-up and shutdown from BOP130002. [N.J.A.C. 7:27-22.16(a)] | VOC (Total): Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See requirements U1 OSO. [N.J.A.C. 7:27-22.16(a)] | VOC (Total): Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | ✓              |    |

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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 Normal,<br>OS3 Normal,<br>OS5 Normal | 23         | TCDD Emissions (2,3,7,8-) ≤ 9.3E-7 lb/hr for each incinerator except during periods of start-up and shutdown from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]                            | TCDD Emissions (2,3,7,8-) Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | TCDD Emissions (2,3,7,8-): Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)] | Stack Test - Submit protocol, conduct test and submit results. As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | <b>✓</b>       |    |
| U1, OS1 Normal,<br>OS3 Normal,<br>OS5 Normal | 24         | Polycyclic Aromatic Hydrocarbons ≤ 0.145 lb/hr ( as benzo(a)pyrene) for each incinerator except during periods of start-up and shutdown from preconstruction permit. [N.J.A.C. 7:27-22.16(e)] | Monitored by stack emission testing prior to permit expiration date, based on the average of three Department validated stack test runs. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]                           | Recordkeeping by stack test results upon occurrence of event. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(e)]                            | Stack Test - Submit protocol, conduct test and submit results. As per the approved schedule. See stack test requirements U1 OSO. [N.J.A.C. 7:27-22.16(o)] | <b>✓</b>       |    |

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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 Normal,<br>OS3 Normal,<br>OS5 Normal | 25         | Maximum Steam Production Limit $\leq$ 424,600 lbs of steam per boiler in any discrete four - hour block period. [N.J.A.C. 7:27-22.16(e)]  | Monitored by integrated steam flow monitor continuously over a distinct four hour block period. [N.J.A.C. 7:27-22.16(e)]   | Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]  | None   | <b>✓</b>       |    |
| U1, OS1 Normal,<br>OS3 Normal,<br>OS5 Normal | 26         | Opacity $\leq$ 10 % except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.15109 (b) and 40 CFR 60.58b(a)(1). [40 CFR 60.39b(d)] & | Opacity: Monitored by continuous opacity monitor continuously, based on 6 minute blocks. The continuous opacity monitoring system shall conform to Performance Specification 1 in 40 CFR 60, appendix B. | Opacity: Recordkeeping by strip chart or data acquisition (DAS) system continuously. Continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection. | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years | <b>✓</b>       |    |

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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 Normal, OS3 Normal, OS5 Normal | 27         | Nitrogen oxides (NOx) <= 205 ppmvd @ 7% O2, 24-hour daily arithmetic average (midnight to midnight) from each MWC except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is | Nitrogen oxides (NOx): Monitored by continuous emission monitoring system continuously, based on a 1 hour block average. Monitor as specified at 40 CFR 60.58b(h)(5). EPA Reference Method 19, section 4.1 shall be used for | Nitrogen oxides (NOx): Recordkeeping by strip chart or data acquisition (DAS) system continuously. All 1-hour average nitrogen oxide concentrations shall be recorded and be available for submittal or review onsite by an inspector. This is as | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 28         | Particulate Emissions <= 25 mg/dscm @ 7% O2 from each MWC on and after April 28, 2009, except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is                            | Particulate Emissions: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring is based on the requirements at                        | Particulate Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.59b(d)(9). [40 CFR 62.14109(a)]  | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See U1 OS Summary . [N.J.A.C. 7:27-22.16(o)]   | ✓              |    |

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|--|------------|--|--|--|---|----------------|----|
|  |            |  |  |  |   | Yes            | No |
| U1, OS1 Normal,<br>OS3 Normal,<br>OS5 Normal | 29         | Lead Emissions $\leq 0.4$ mg/dscm @ 7% O <sub>2</sub> from each MWC on and after April 28, 2009, except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14102 | Lead Emissions: Monitored by stack emission testing annually, based on the average of three 1-hour tests. See stack testing requirements in U1 OS0. Monitoring is based on the Method 29 requirements at 40 CFR 62.14102 | Lead Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.595(a)(9), [40 CFR 62.14109(a)]        | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See U1 OS Summary . [N.J.A.C. 7:27-22.16(o)] | ✓              |    |
| U1, OS1 Normal,<br>OS3 Normal,<br>OS5 Normal | 30         | Cadmium Emissions $\leq 0.035$ mg/dscm @ 7% O <sub>2</sub> from each MWC on and after April 28, 2009 except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is                          | Cadmium Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. Monitoring requirements are               | Cadmium Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.595b(d)(9), [40 CFR | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See U1 OS Summary . [N.J.A.C. 7:27-22.16(o)] | ✓              |    |

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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 Normal, OS3 Normal, OS5 Normal | 31         | Mercury Emissions $\leq 0.05$ mg/dscfm @ 7% O <sub>2</sub> or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7% oxygen, whichever is less stringent, from each MWC on and after April 1, 2012 | Mercury Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. Monitoring is based on the requirements of 40 CFR | Mercury Emissions: Recordkeeping by stack test results annually. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.59b(a)(9)(i), (40 CFR 62.14109(a))                         | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See U1 OS Summary . [N.J.A.C. 7:27-22.16(o)]  | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 32         | SO <sub>2</sub> $\leq 29$ ppmvd @ 7% O <sub>2</sub> , or 25% of the potential sulfur dioxide emission concentration (75 percent reduction by weight or volume) whichever is less stringent, from each MWC except during                                  | SO <sub>2</sub> : Monitored by continuous emission monitoring system continuously, based on a daily average (a 24-hour daily geometric average), or a daily geometric average percent reduction using EPA Reference              | SO <sub>2</sub> : Recordkeeping by strip chart or data acquisition (DAS) system continuously. The owner or operator shall maintain records of all 1-hour average sulfur dioxide emission concentrations. This is as specified | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR); On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years | ✓              |    |

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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<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 33         | HCl Emissions <= 20 ppmvd @ 7% O2 or 5% of the potential hydrogen chloride emission concentration (95 percent reduction by weight or volume) whichever is less stringent, from each MWC except during periods of startup | HCl Emissions: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. Monitoring, including determining % reduction, is based on the | HCl Emissions: Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. Recordkeeping is based on the requirements at 40 CFR 60.59b(a)(9). [40 CFR 62.14109(a)] | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See U1 OS Summary. [None]   | ✓              |    |
| U1, OS1<br>Normal,<br>OS3<br>Normal,<br>OS5<br>Normal | 34         | Dioxins/Furans (Total) <= 35 ng/dscm @ 7% O2. On and after April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 35 nanograms per      | Dioxins/Furans (Total): Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. See stack testing requirements in U1 OS0. Monitoring is as required at 40                       | Dioxins/Furans (Total): Recordkeeping by stack test results upon occurrence of event. See stack testing requirements in U1 OS0. This is as specified at 40 CFR 60.59b(d)(9)(i). [40 CFR 62.14109(a)]           | Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. See stack testing requirements in U1 OS0. [N.J.A.C. 7:27-22.16 (o)] | ✓              |    |

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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 Normal, OS3 Normal, OS5 Normal | 35         | CO ≤ 100 ppmvd @ 7% O2 from each MWC except during periods of startup, shutdown, and malfunction. Startup, shutdown, and malfunction exception is specified by 40 CFR 62.14109 (b), 40 CFR 60.344(a) and 40 CFR 60.504 | CO: Monitored by continuous emission monitoring system continuously, based on a 1 hour block average which shall be used to calculate a 4-hour block average. The continuous emission monitoring system shall be operated according to | CO: Recordkeeping by strip chart or data acquisition (DAS) system continuously. All 1-hour average CO concentrations shall be recorded and available for submittal to the administrator or review onsite by an inspector. This is as stated in | Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): On or before every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1 | Yes            | No |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 36         | The facility must not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation         | Monitored by visual determination annually, based on the average of three tests<br>Compliance with fugitive ash emission limits shall be based on a series of three one hour observations, performed annually.                         | Other: Maintain records of annual method<br>22 results along with all supporting calculations. This is as specified at 40 CFR 60.59b(d)(9), [40 CFR 60.39b (d)]&[40 CFR 62.14109(a)].  | None   | Yes            | No |

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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 Normal, OS3 Normal, OS5 Normal | 37         | The owner/operator of a municipal waste combustor must comply with the MWC operating practice requirements codified under 40 CFR 60.50b (b) and (c) of NSPS Subpart Eb. [40 CFR 62.14104]                                    | None  | None  | None                         | ✓              |    |
| U1, OS1 Normal, OS3 Normal, OS5 Normal | 38         | The temperature at the particulate control device inlet shall not exceed the maximum demonstrated particulate matter control device temperature as defined in 40 CFR 60.51b by more than 17 degrees Celsius. [60.58b(i)(7).] | Monitored by temperature instrument continuously, based on a 1 hour block average which shall be used to calculate 4-hour block arithmetic averages, based on the requirement at 40 CFR [60.58b(i)(7).] | Recordkeeping by strip chart or data acquisition (DAS) system continuously<br>Continuously recorded data may be printed periodically and stored in a permanent form suitable for submittal or on-site inspection. [60.58b(i)(7).] | None                         | ✓              |    |

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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 Normal, OS3 Normal, OS5 Normal     | 39         | No owner or operator of an affected facility shall cause it to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in 40 CFR 60.51b, except: (1) During the annual | Other: The owner or operator shall operate a steam or feedwater flow meter on a continuous basis, as required at 40 CFR 60.56(a)(6)(i). Steam (or feed water flow) flow calculations as required under 40 CFR 60.56(a)(6)(ii) shall be in | Recordkeeping by strip chart or data acquisition (DAS) system continuously recorded data can be printed and stored in a permanent form suitable for submittal or on-site inspection, based on the requirement at 40 CFR 60.56(a) | None                         | ✓              |    |
| U1, Emergency Malfunction on OS2, OS4, OS6 | 5          | EMERGENCY MALFUNCTION: The duration of emission excursions caused by malfunctions shall not exceed the following limits per occurrence and percent of operating time: SO2 180min, 2%   | Monitored by continuous emission monitor upon occurrence of event (and hour time monitor). [N.J.A.C. 7:27-22.16 (e)]  | Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Data may be periodically printed and maintained reliably in a log book on site. [N.J.A.C. 7:27-22.16(o)]                      | None                         | ✓              |    |

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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, Emergency Malfunction on OS2, OS4, OS6 | 6          | <b>EMERGENCY MALFUNCTION:</b><br>The duration of operating requirements caused by excursions shall not exceed the following limits per occurrence and percent of operating time:<br>Temperature 60min. 0.1%<br>[N.J.A.C. 7:27-22.16(e)] | Monitored by parametric monitoring system upon occurrence of event (temperature monitor and hour time monitor). [N.J.A.C. 7:27-22.16(e)] | Recordkeeping by data acquisition system (DAS) / electronic data storage upon occurrence of event. Data may be periodically printed and maintained reliably in a log book on site. [N.J.A.C. 7:27-22.16(e)] | None                         | ✓              |    |
| U1, Emergency Malfunction on OS2, OS4, OS6 | 9          | <b>EMERGENCY MALFUNCTION:</b><br>Any visible emission caused by a malfunction shall not exceed an average of 10% opacity in any 6 minute block period, as determined by the continuous emission   | Monitored by continuous opacity monitor upon occurrence of event, based on 6 minute blocks. [N.J.A.C. 7:27-22.16(e)]                     | Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Data may be periodically printed and maintained reliably in a log book on site. [N.J.A.C. 7:27-22.16(e)]             | None                         | ✓              |    |

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## Attachment to the RADIUS Air Operating Permit Renewal Application

### 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 2<sup>nd</sup> 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 3<sup>rd</sup> 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 2<sup>nd</sup> 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.

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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   | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance   | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No) |
|--|--|---|---|
| <b>OS /<br/>Ref #</b><br><br><i>Subject Item</i><br>FC | In Compliance  | Consistent with all methods listed in monitoring and record keeping permit requirements | No  |
| OS / Ref #   |  |   |   |
|  |  |   |   |
| <b>Subject Item</b><br>IS1<br><br>OS / Ref #           | In Compliance  | Consistent with all methods listed in monitoring and record keeping permit requirements | No  |
| OS / Ref #   |  |   |   |
|  |  |   |   |
| <b>Subject Item</b><br>IS2<br><br>OS / Ref #           | In Compliance  | Consistent with all methods listed in monitoring and record keeping permit requirements | No  |
| OS / Ref #   |  |   |   |
|  |  |   |   |

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**Attachment to the RADIUS Air Operating Permit Renewal Application**

**Section 5  
Compliance Status**

**Instructions**

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| Subject Item                             | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance   | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No) |
|--|--|---|---|
| OS /<br>Ref #<br><br>Subject Item<br>IS3 | In Compliance  | Consistent with all methods listed in monitoring and record keeping permit requirements | No  |
| OS / Ref #                               |  |   |   |
| Subject Item<br>GR1                      |  | Consistent with all methods listed in monitoring and record keeping permit requirements |   |
| OS / Ref #                               | In Compliance  |   | No  |
| Subject Item<br>U1                       |  | Intermittent non-compliance as measured by CEMS.  |   |
| OS / Ref #<br>OS Summary<br>Ref.71       |  | See Appendix B for details of non-compliance events                                     |   |

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**Section 5  
Compliance Status**

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| Subject Item                            | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance                 | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No) |
|---|--|---|---|
| OS /<br>Ref #<br><br>Subject Item<br>U1 | In Compliance  | Intermittent non-compliance as measured by CEMS.    | No  |
| OS / Ref #<br>OS Summary<br>Ref.26      |  | See Appendix B for details of non-compliance events |   |
| Subject Item<br>U1                      | In Compliance  | Intermittent non-compliance as measured by CEMS.    |   |
| OS / Ref #<br>OS Summary<br>Ref.48      |  | See Appendix B for details of non-compliance events |   |
| Subject Item                            | In Compliance  |   |   |
| OS / Ref #                              |  |   |   |

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**Section 5  
Compliance Status**

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| Subject Item                            | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance                 | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No) |
|---|--|---|---|
| OS /<br>Ref #<br><br>Subject Item<br>U1 | In Compliance  | Intermittent non-compliance as measured by CEMS.    | No  |
| OS1, OS3, OS5<br>Ref. #6                |  | See Appendix B for details of non-compliance events |   |
| Subject Item<br>U1                      | In Compliance  | Intermittent non-compliance as measured by CEMS.    | No  |
| OS / Ref #<br>OS1, OS3, OS5<br>Ref. #11 |  | See Appendix B for details of non-compliance events |   |
| Subject Item<br>U1                      | In Compliance  | Intermittent non-compliance as measured by CEMS.    | No  |
| OS / Ref #<br>OS1, OS3, OS5<br>Ref. #25 |  | See Appendix B for details of non-compliance events |   |

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**Section 5  
Compliance Status**

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| Subject Item                                   | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance   | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No) |
|--|--|---|---|
| OS /<br>Ref #<br><br><i>Subject Item</i><br>U1 | In Compliance  | Intermittent non-compliance as measured by CEMS.<br><br>See Appendix B for details of non-compliance events | No  |
| OS /Ref #<br>OS1,OS3, OS5<br>Ref. 26           | In Compliance  | Intermittent non-compliance as measured by CEMS.<br><br>See Appendix B for details of non-compliance events | No  |
| OS /Ref #<br>OS1,OS3, OS5<br>Ref.# 35          | In Compliance  | Intermittent non-compliance as measured by CEMS.<br><br>See Appendix B for details of non-compliance events | No  |
| OS /Ref #<br>OS Summary                        | In Compliance  | Consistent with all methods listed in monitoring and recording permit requirements                          | No  |

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**Section 5  
Compliance Status**

**Instructions**

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| Subject Item                               | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance  | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No)                            |
|--|--|--|--|
| OS /<br>Ref #<br><i>Subject Item</i><br>U6 | In Compliance  | Consistent with all methods listed in monitoring and recording permit requirements | No   |
| OS /Ref #<br>OS Summary                    |  |  |  |
| <i>Subject Item</i><br>U7                  |  | In Compliance  |  |
| OS /Ref #<br>OS Summary                    |  |  |  |
| <i>Subject Item</i><br>U8                  | In Compliance  |  | Consistent with all methods listed in monitoring and recording permit requirements |
| OS /Ref #<br>OS Summary                    |  |  |  |

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**Section 5  
Compliance Status**

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| Subject Item                     | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance  | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No) |
|----------------------------------|--|--|---|
| Subject Item<br>U9               | In Compliance  | Consistent with all methods listed in monitoring and recording permit requirements | No  |
| OS / Ref #<br>OS Summary         |  |  |   |
| Subject Item<br>U9               | In Compliance  | Consistent with all methods listed in monitoring and recording permit requirements | No  |
| OS / Ref #<br>OS1, OS3 -<br>OS10 |  |  |   |
| Subject Item<br>U9               | In Compliance  | Consistent with all methods listed in monitoring and recording permit requirements | No  |
| OS / Ref #<br>OS2                |  |  |   |

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**Section 5  
Compliance Status**

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| Subject Item                                | Compliance Status<br>(In Compliance<br>Non-Compliance) | Method Used to Determine Compliance  | Is a<br>Compliance<br>Schedule<br>Attached?<br>(Yes/No) |
|---|--|--|---|
| OS /<br>Ref #<br><i>Subject Item</i><br>U10 | In Compliance  | Consistent with all methods listed in monitoring and recording permit requirements | No  |
| OS /Ref #<br>OS Summary                     |  |  |   |
| <i>Subject Item</i><br>U10                  |  |  |   |
| OS /Ref #<br>OS1                            | In Compliance  | Consistent with all methods listed in monitoring and recording permit requirements | No  |
| <i>Subject Item</i>                         |  |  |   |
| OS /Ref #                                   |  |  |   |
| OS /Ref #                                   | In Compliance  |  | No  |
| <i>Subject Item</i>                         |  |  |   |
|   |  |  |   |

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**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<br>OS / Ref # | Requirement                                       | Compliance Schedule | Compliance Schedule |         |       |
|----------------------------|---|---------------------|---------------------|---------|-------|
|                            |   |                     | Updated             | Removed | Added |
| Subject Item               | There are no Compliance schedules in Section D of | the permit          |                     |         |       |
| OS / Ref #                 |   |                     |                     |         |       |
| Subject Item               |   |                     |                     |         |       |
| OS / Ref #                 |   |                     |                     |         |       |
| Subject Item               |   |                     |                     |         |       |
| OS / Ref #                 |   |                     |                     |         |       |

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# Appendix A

Camden County Energy Recovery Associates, L. P.

Compliance Assurance Monitoring (CAM) Plan

Under the CAM rule (40 CFR 64), the Camden County Resource Recovery Facility is subject to CAM requirements for emissions and control devices listed below:

| Control Device                  | Control device Inventory Designation                                   | Emissions Controlled                  |
|---------------------------------|--|---------------------------------------|
| Electrostatic Precipitator      | CD2, CD4, CD6  | Particulate (PM-10)                   |
| Dry Scrubber                    | CD1, CD3, CD5  | Acid Gasses (SO <sub>2</sub> , HCl)   |
| Overfire-Air Combustion Control | None – Included to assure compliance with NO <sub>x</sub> Control Plan | NO <sub>x</sub> , Dioxins (TCDD), VOC |
| Activated Carbon Injection      | CD11, CD12, CD13   | Mercury (Hg)                          |
|                                 |  |                                       |

Note: Particulate control devices CD7, CD8, CD9, CD10, CD14 are not subject to CAM, however the facility Title V permit contains specific monitoring and recordkeeping requirements for each control device which are consistent with recommended CAM approaches in the guidance documents associated with 40 CFR 64.

In comparing the facility Title V Permit to the CAM examples in the guidance documents for the development of CAM plans provided at <http://www.epa.gov/ttn/emc/cam/draftcamappb.pdf>,

NJDEP has structured the facility Title V Permit, specifically the monitoring, recordkeeping, and submittal requirements to be consistent with requirements applicable under the CAM rule.

Camden County Energy Recovery Associates (CCERA) has adopted a strategy to implement CAM requirements through the Compliance Plan (Section J) of the Title V Permit, and reports, logs and checklists collected by facility operators.

In most cases, CCERA contends that there is sufficient depth and breadth within the existing Permit such that conditions and requirements that may normally be part of a separate Compliance Assurance Monitoring Plan (CAM Plan) are already included within the Permit. The CAM rule requires control ranges on specific operating parameters, which are presented in the tables below for each control device.

Each control device, and each emission point, have permit requirements which require specific monitoring, recordkeeping, and submittal requirements to ensure compliance. The tables below indicate for each control device, the parameters to be monitored as recommended in the CAM examples, and typical operating ranges for each.

Table 1-1 Summary of Performance Indicators for Electrostatic Precipitator (PM-10, trace metals)

| Parameter  | Compliance Plan Permit References | Performance Indication  | Monitoring Method (CEM, COM, DCS, Operator) | Monitoring or Recording Frequency | Operating Range  |
|--|-----------------------------------|---|---|-----------------------------------|--|
| Outlet PM concentration                              | FC-13, U1-OS-(2-7), U1-OS-49      | PM concentration is the most direct indicator of ESP performance  | Emissions Testing                           | Annual                            | < Permit Limits  |
| Trace Metal Concentration (As, Be, Ni, Cd, Pb, Cr+6) | U1-OS-10                          | Indication of emissions, tied to ESP performance  | Emissions Testing                           | Annual                            | < Permit Limits  |
| Opacity  | FC-14                             | COMS, opacity observations or visible/no visible emissions  | COMS  | Continuous                        | <10%   |
| Secondary Corona Power                               | U1-OS-97                          | Performance usually increases as power input increases. Can help identify any fields that are not operating                                       | Belco (Automatic) Reporting                 | Continuous                        | > 30kw total   |
| Secondary Current                                    | U1-OS-98                          | Partial indicator of power consumption, too low indicates malfunction. Can help identify fields which are not operating properly                  | Belco (Automatic) Reporting                 | Continuous                        | >60mA  |
| Secondary Voltage                                    | U1-OS-98                          | Partial indicator of power consumption, too low indicates potential grounded electrode. Can help identify fields which are not operating properly | Belco (Automatic) Reporting                 | Continuous                        | >30kV  |
| Inlet gas temperature                                | U1-OS-44                          | Temperature affects resistivity of particulate. Too low causes excessive sparking.  | CEMS  | Continuous                        | 295-360 degF, not to exceed 30degF higher than dioxin test |

Table 1-2 Summary of Performance Indicators for Dry Scrubber (SO<sub>2</sub>, HCl)

| Parameter                               | Compliance Plan Permit References | Performance Indication   | Monitoring Method (CEM, COM, DCS, Operator) | Monitoring or Recording Frequency           | Operating Range  |
|---|-----------------------------------|--|---|---|--|
| SO <sub>2</sub> outlet concentration    | U1-OS-1                           | Indication of actual emissions   | CEM   | Continuous                                  | <29 ppm<br>(automatic slurry control above 15 ppm)         |
| HCl outlet concentration                | U1-OS-8                           | Indicator of actual emissions  | Emissions Test                              | Annually                                    | < permit limits  |
| Scrubber Liquid (Lime slurry) flow rate | U1-OS-95                          | Insufficient flow will result in insufficient acid gas reductions  | DCS, (Automatic control from CEM)           | Continuous monitoring with hourly recording | 5-20 gpm, typically 6-10 gpm                               |
| Scrubber liquid pH                      | U1-OS-96                          | Can detect inadvertent dilution of lime slurry   | DCS   | Continuous monitoring with hourly recording | 8-12.5 std. units  |
| Lime Slurry specific gravity            | None                              | Measure of the available CaO to react in the scrubber. Too high causes improper slurry atomization, too low will result in insufficient acid gas reduction | Operator                                    | Every 4 hours                               | 1.08-1.12 g/cc   |
| Scrubber gas outlet temperature         | U1-OS-44                          | Indicator of effective atomization of scrubber medium  | CEMS  | Continuous                                  | 295-360 degF, not to exceed 30degF higher than dioxin test |

Table 1-3 Summary of Performance Indicators for Activated Carbon Injection (Hg)

| Parameter                  | Compliance Plan Permit References | Performance Indication   | Monitoring Method (CEM, COM, DCS, Operator)      | Monitoring or Recording Frequency                                   | Operating Range   |
|----------------------------|-----------------------------------|--|--|---|---|
| Carbon Feed rate           | U1-OS-(99-106)                    | Less than minimum from optimization test may result in lower removal efficiency  | Auger speed continuous, feed rate verified daily | Monitored continuously, recorded hourly, actual test recorded daily | 27.7 (min) lb/hr, Usually maintained at 29-32 lb/hr to prevent actual delivery less than minimum rate |
| ESP Outlet temperature     |                                   | Affects ESP efficiency for removing carbon from flue gas, too low will accelerate corrosion of the casing and lead to casing air leaks | Continuous                                       | Monitored continuously, tied to ESP inlet temperature               | 260-340degF   |
| Volumetric Inventory Check | U1-OS-104                         | Verification that daily feed rate checks are confirmed by actual usage based on change in inventory                                    | Monthly  | Monthly (via EEMPR)   | > 1.86 lb/ton processed   |
| Mercury Emissions          | U1-OS-9, U1-OS-(31-36)            | Indication of actual emissions and removal efficiency  | Emissions test                                   | Quarterly or Annually based on performance                          | < Permit Limit  |

Table 1-4 Summary of Performance Indicators for Combustion Control / Overfire Air Control (VOC, NOx, Dioxins, CO)

| Parameter   | Compliance Plan Permit References | Performance Indication   | Monitoring Method (CEM, COM, DCS, Operator) | Monitoring or Recording Frequency           | Operating Range  |
|---|-----------------------------------|--|---|---|--|
| Outlet CO concentration   | U1-OS-41                          | High CO emissions indicate improper combustion   | CEMS  | Continuous                                  | < 100 ppm  |
| Outlet dioxin concentration   | U1-OS-11                          | Measurement of emissions   | Emissions test                              | Annually                                    | <30ng/dscfm  |
| Outlet VOC emissions  | U1-OS-29                          | Measurement of emissions   | Emissions test                              | Annually                                    | <3.5 lb/hr   |
| NOx emissions   | U1-OS-30                          | Measurement of emissions in accordance with the NOx Control Plan   | CEM   | Continuous                                  | < 205 ppm, <612 tpy  |
| Furnace temperature at the thermocouples located at the 216' 6" elevation | U1-OS-(69-72,)                    | Low temperature indicates poor combustion, and insufficient temperature to facilitate the completion of all combustion reactions. High temperature indicates boiler fouling and/or overfiring. | CEMS (Thermocouples)                        | Continuous                                  | In accordance with permit requirements during start-up, during sustained operation 1000-1350degF |
| Boiler exit O2 level  | U1-OS-(73-75)                     | High O2 indicates an interruption to good combustion, low O2 indicates over firing   | CEM   | Continuous                                  | 3-11%  |
| Combustion Air flow rate  |                                   | Indicates a deviation from normal combustor operation. High air flow rate indicates loss of a combustion air seal at the feed chute or ash extractor   | Continuous                                  | Continuous monitoring with hourly recording | 150,000-195,000 pph, based on boiler steam load  |

The Compliance Status of each requirement is documented in Section 6 of the Permit renewal Application. The following discussion describes the facility strategy for how the Compliance Plan is implemented.

Requirements that require verification more frequently than once per day are tracked via Operator Logs. Observations are recorded on operator's round sheets and data measurements are taken by the Bailey Distributed Control System (Boiler, turbine, and auxiliaries), Belco Control System (Lime Slaker, Scrubber, and ESP), the DRDAS Continuous Emissions Monitoring data acquisition system. Each of the automated systems does a data reduction daily, and generates a paper summary. Each of the automated systems also generates an automated alarm or exception report, which can also be used to determine if compliance parameters were maintained.

All daily or more frequent requirements are reviewed as part of the Shift Supervisor's Daily Compliance Checklist. On a daily basis, the Shift Supervisor confirms that these observations, measurements, or parameters were checked to determine compliance, and if a non-compliance event occurred, that it was documented and reported in accordance with plant procedures and/or permit requirements.

Observations, tests, or compliance verifications that are done weekly or less frequent are entered into our task management system known as MP2. MP2 has the ability to schedule and track completion of tasks on any prescribed frequency. On at least a weekly basis, all current tasks in MP2 are reviewed to determine what is due and what is coming due, such that all testing, observation, and report requirements can be timely met. These tasks are intentionally set up to allow for permit-required planning requirements to be met. (Example: Submission of test protocols at least 45 days in advance of requested stack testing dates)

Examples of tasks tracked via MP2 include monitoring of auxiliary fuel usage, calculation and tracking of CEM monitor downtime, observations of the lime and carbon silo fabric filters, and verifying the actual carbon feed rate by inventory calculation.

On a quarterly basis, the requirements and certification of Excess Emission Reports (EEMPRs) and/or Semi-Annual Deviation reports require a self-audit of all permit requirements. Annually, we conduct an audit prior to submission of our Annual Compliance Certification.

Additional tasks performed as part of permit implementation are listed with the relevant permit condition in the Compliance Status section of the Permit Renewal Application.

## Appendix B

Provide below is a Summary of CEMS/COMS monitoring events for the period beginning on the issuance date of the current Title V permit of August 11, 2015 through Decemebr 21, 2019. These events were reported to NJDEP in accordance with notification requirements in a timely manner as well as in the appropriate quarterly, semi-annual, and annual reports.

Summary of Excess Emissions Events For the Period from August 11, 2015 through April 10, 2018

| Incident #                           | Date     | Unit # | Pollutant Parameter | Title V Permit Limit                        | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|--------------------------------------|----------|--------|---------------------|---|-------------------------------|--|---|
| 15-09-05-0553-54                     | 09/05/15 | 2      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler B (E2) caused by plugged ash hopper.   |
| 15-10-02-1117-40                     | 10/02/15 | 2      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler B (E2) caused by severe rain event.  |
| 15-10-18-0702-28<br>15-10-18-0707-36 | 10/17/15 | 1      | O2                  | Oxygen 3% or greater for any 5 minute block | 2                             | U1, OS Summary Ref. # 71                               | Oxygen level fell below 5-min block average minimum level of >=3% by volume average on a dry basis on two occasions for Boiler A (E1) due to combustion air fans shutdown |
| 15-10-17-1231-46                     | 10/17/15 | 3      | Opacity             | 10% or less for a 6-minute block average    | 1                             | U1, OS1, OS3, OS5 Normal Ref. #26                      | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) caused by broken Insulator.   |



| Incident #       | Date       | Unit # | Pollutant Parameter | Title V Permit Limit                        | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|------------------|------------|--------|---------------------|---|-------------------------------|--|---|
| 15-10-18-2352-34 | 10/18/2015 | 1      | O2                  | Oxygen 3% or greater for any 5 minute block | 1                             | U1, OS Summary Ref. # 71                               | Oxygen level fell below 5-min block average minimum level of >=3% by volume average on a dry basis on two occasions for Boiler A (E1) due to combustion air fans shutdown                 |
| 15-12-06-0202-12 | 12/06/15   | 3      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) caused by rapper control failure.   |
| 16-01-04-2133-35 | 01/04/16   | 3      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5                 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) mechanical rappers in C Electrostatic Precipitator (ESP) failed to cycle properly.              |
| 16-02-01-1258-52 | 02/01/16   | 2      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to a water tube failure in the furnace which caused immediate boiler shutdown in boiler B (E2).                                     |
| 16-02-11-1106-39 | 02/11/16   | 3      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to mechanical rapper the outlet distribution plate (Rapper C-602) failed to cycle properly. |

| Incident #       | Date     | Unit # | Pollutant Parameter | Title V Permit Limit                     | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|------------------|----------|--------|---------------------|--|-------------------------------|--|---|
| 16-02-13-1533-24 | 02/13/16 | 2      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref.     | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler B (E2) due to the fifth field of Boiler B began to spark, ramped down and tripped without any warning. TR2-5.  |
| 16-02-18-0754-30 | 02/18/16 | 2      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to an electrode counterweight mechanically come apart, causing the high-voltage electrode from the fourth field to come into close clearance with collector plates in the fifth field, causing the fifth field to ramp to a lower secondary voltage.fifth field of Boiler B (E2) began to spark, ramped down and tripped without any warning. |
| 16-02-24-1622-58 | 02/24/16 | 2      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in fifth field of Boiler B (E2) (TR2-5) trip.  |
| 16-02-28-0334-36 | 02/28/16 | 3      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in The fourth field of Boiler C (E3) (TR3-4) trip.   |

| Incident #       | Date     | Unit # | Pollutant Parameter | Title V Permit Limit                        | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|------------------|----------|--------|---------------------|---|-------------------------------|--|---|
| 16-04-06-1148-00 | 04/06/16 | 3      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to The mechanical rapper on the final (5th) field electrodes (Rapper C-503) in Boiler C (E3) Electrostatic Precipitator (ESP) failed to cycle properly. |
| 16-06-07-1856-31 | 4/7/2016 | 3      | O2                  | Oxygen 3% or greater for any 5 minute block | 1                             | U1, OS Summary Ref. # 71                               | Oxygen level fell below 5-min block average minimum level of >=3% by volume average on a dry basis on two occasions for Boiler C (E3) due to combustion air fans shutdown                                     |
| 16-07-12-1651-08 | 07/12/16 | 1      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1,                          | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler A (E1) due to TR-4 transformer breaker trip  |
| 16-08-10-1250-12 | 08/10/16 | 2      | CO                  | CO emission 100 ppm dv & or less @7%O2      | 1                             | U1, OS1, OS3, OS5 Normal Ref. #35                      | Emission exceeded 100 ppm CO as measured by CEMS due to high BTU fuel fed to Boiler B (E2).   |
| 16-09-05-0514-40 | 09/05/16 | 3      | Opacity             | 10% or less for a 6-minute block average    | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to ESP third field failed; intermitten ground fault alarm observed.   |

| Incident #       | Date      | Unit # | Pollutant Parameter | Title V Permit Limit                                       | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|------------------|-----------|--------|---------------------|--|-------------------------------|--|---|
| 16-09-15-2156-31 | 09/15/16  | 3      | Opacity             | 10% or less for a 6-minute block average                   | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to ash build up on stand off and rapper intensity being too high. New rappers installed and the intensity was higher. |
| 16-11-11-0439-41 | 11/11/16  | 2      | Steam Flow          | Steam 421,600 lbs. or less for a 4 hour block period       | 1                             | U1, OS1, OS3, OS5 Normal Ref. #25                      | Emission exceeded Steam production limit 421.6 klb per 4-hr average as measured by CEMS due to operator error.  |
| 16-12-01-0020-48 | 12/1/2016 | 3      | Opacity             | 10% or less for a 6-minute block average                   | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to  |
| 16-12-04-1112-33 | 12/04/16  | 3      | SO2                 | SO2 50 ppmvd @ 7% O2 but not exceed 100 ppm 3 hour rolling | 1                             | U1, OS1, OS3, OS5 Normal Ref. #6                       | Emission exceeded 3-hr rolling SO2 as measured by CEMS due to high SO2 fuel and correction factor data inflation  |
| 16-12-08-0206-55 | 12/08/16  | 2      | Opacity             | 10% or less for a 6-minute block average                   | 3                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to TR2-5 Trip ; Broken electrodes found in Boiler B (E2)  |

| Incident #       | Date     | Unit # | Pollutant Parameter | Title V Permit Limit                     | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|------------------|----------|--------|---------------------|--|-------------------------------|--|---|
| 16-12-30-2043-04 | 12/30/16 | 2      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to TR2-5 Trip ; Direct short between electrodes and plate due to corrosion material in Boiler B(E2) . |
| 17-02-01-1244-53 | 02/01/17 | 1      | Opacity             | 10% or less for a 6-minute block average | 2                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler A (E1) due to ESP breaker trip on protective overload.                   |
| 17-02-01-1244-53 | 02/01/17 | 2      | Opacity             | 10% or less for a 6-minute block average | 2                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler B (E2) due to ESP breaker trip on protective overload.                   |
| 17-02-03-0558-12 | 02/03/17 | 3      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to damage to ESP hopper.                                      |
| 17-02-04-2133-48 | 02/04/17 | 3      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to damage to ESP hopper.                                      |

| Incident #       | Date     | Unit # | Pollutant Parameter | Title V Permit Limit                               | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|------------------|----------|--------|---------------------|--|-------------------------------|--|---|
| 17-02-09-1349-58 | 02/09/17 | 3      | Opacity             | 10% or less for a 6-minute block average           | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to damage to ESP hopper.                  |
| 17-02-11-1638-45 | 02/11/17 | 3      | Opacity             | 10% or less for a 6-minute block average           | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to damage to ESP hopper.                  |
| 17-03-06-1634-23 | 03/06/17 | 1      | SO2                 | SO2 50 ppmvd @ 7% O2 but not exceed 100 ppm 3 hour | 1                             | U1, OS1, OS3, OS5 Normal Ref. #6                       | Emission exceeded 3-hr rolling SO2 above 50ppm at 7%O2 and below 8/0% reduction in Boiler A (E1) due to high sulfur fuel fed to boiler. |
| 17-04-11-1121-42 | 04/11/17 | 3      | Opacity             | 10% or less for a 6-minute block average           | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler C (E3) due to broken electrodes.                     |
| 17-06-21-1608-29 | 06/21/17 | 2      | Opacity             | 10% or less for a 6-minute block average           | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler B (E2) due to ESP TR2-5 trip on undervoltage.        |

| Incident #       | Date       | Unit # | Pollutant Parameter | Title V Permit Limit                               | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event  |
|------------------|------------|--------|---------------------|--|-------------------------------|--|---|
| 17-10-07-0653-26 | 10/07/17   | 3      | Opacity             | 10% or less for a 6-minute block average           | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to lost of ID Fan following an electrical malfunction on Boiler C (E3).                                 |
| 17-10-07-0653-26 | 10/07/17   | 3      | CO                  | CO emission 400 ppmdv & or less @7%O2 1 hour block | 1                             | U1, OS1, OS3, OS5 Normal Ref. #35                      | Emission exceeded 1-hr rolling CO above 400ppm at 7%O2 in Boiler C (E3) due an electrical malfunction resulting in the loss of the boiler combustion air fan. |
| 17-10-07-0653-26 | 10/07/17   | 3      | CO                  | CO emission 100 ppmdv & or less @7%O2 4 hour block | 1                             | U1, OS1, OS3, OS5 Normal Ref. #35                      | Emission exceeded 4-hr rolling CO above 100ppm at 7%O2 Boiler C (E3) due an electrical malfunction resulting in the loss of the boiler combustion air fan.    |
| 17-10-11-1423-04 | 10/11/17   | 3      | Opacity             | 10% or less for a 6-minute block average           | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to Field 3 Upper dump valve not closing properly on Boiler C(E3).                                       |
| 17-10-15-0544-00 | 10/14/2017 | 1      | Opacity             | 10% or less for a 6-minute block average           | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to Field 5 Upper dump valve not closing properly on Boiler A (E1).                                      |

| Incident #       | Date     | Unit # | Pollutant Parameter | Title V Permit Limit                     | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event   |
|------------------|----------|--------|---------------------|--|-------------------------------|--|--|
| 17-10-23-1039-43 | 10/23/17 | 3      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due suspected short in Field 4 Boiler C (E3).  |
| 17-11-27-0033-52 | 11/27/17 | 3      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to damaged on Field 5 Collector Plate Boiler C (E3).   |
| 17-12-14-0944-28 | 12/14/17 | 3      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Boiler A (E1) experienced a plugged feed screw that resulted in more than 3 hours of carbon feed downtime. Facility was able to maintain 8-Hr block feedrate of 32.6 lb/hr (limit 31.2 lbs/hr) |
| 17-12-15-2216-32 | 12/15/17 | 3      | Opacity             | 10% or less for a 6-minute block average | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to failed insulation on transfer high voltage cable on Boiler C (E3).  |
| 18-01-25-0905-11 | 01/25/18 | 1      | Opacity             | 10% or less for a 6-minute block average | 2                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5                 | Emission exceeded 10% Opacity as measured by COMS due to an unexplained event on Boiler A (E1).  |



| Incident #       | Date     | Unit # | Pollutant Parameter | Title V Permit Limit   | Number of Periods Above Limit | Title V Permit Condition                               | Reason for Event   |
|------------------|----------|--------|---------------------|--|-------------------------------|--|--|
| 18-02-17-0031-54 | 02/16/18 | 1      | Opacity             | 10% or less for a 6-minute block average                                   | 1                             | OS Summary, Ref. #48 U1, OS1,                          | Emission exceeded 10% Opacity as measured by COMS due to ESP malfunction in Boiler B (E2) due to ID fan control failure.   |
| 18-03-01-0329-31 | 03/01/18 | 2      | Opacity             | 10% or less for a 6-minute block average                                   | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to short in Field 5 Boiler B (TR3-5).  |
| 18-03-09-1024-32 | 03/09/18 | 2      | CO                  | CO emission 100 ppm <sub>dv</sub> & or less @7%O <sub>2</sub> 4 hour block | 1                             | U1, OS1, OS3, OS5 Normal Ref. #35                      | Emission exceeded 4-hr rolling CO above 100ppm at 7%O <sub>2</sub> Boiler C (E3) due an electrical malfunction resulting in the loss of the boiler combustion air fan. |
| 18-03-26-1211-11 | 03/26/18 | 3      | Opacity             | 10% or less for a 6-minute block average                                   | 1                             | OS Summary, Ref. #48 U1, OS1, OS3, OS5 Normal Ref. #26 | Emission exceeded 10% Opacity as measured by COMS due to short in Field 5 Boiler C (TR3-5).  |