



NOV 16 2011

Sam Monaco  
South Kern Industrial Center, LLC  
P O Box 265  
Taft, CA 93268

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # S-4212  
Project # S-1094617**

Dear Mr. Monaco:

Enclosed for your review and comment is the District's analysis of South Kern Industrial Center, LLC's application for the Federally Mandated Operating Permit for its biosolids co-composting facility located at 2653 Santiago Road in Taft, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

cc: Sajjad Ahmad, Permit Services Engineer

Attachments

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



NOV 16 2011

Gerardo C. Rios, Chief  
Permits Office (AIR-3)  
U.S. EPA - Region IX  
75 Hawthorne St  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # S-4212  
Project # S-1094617**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of South Kern Industrial Center, LLC's application for the Federally Mandated Operating Permit for its biosolids co-composting facility located at 2653 Santiago Road in Taft, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 45-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

cc: Sajjad Ahmad, Permit Services Engineer

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Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org) [www.healthyairliving.com](http://www.healthyairliving.com)

Southern Region  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



**NOV 16 2011**

Mike Tollstrup, Chief  
Project Assessment Branch  
Air Resources Board  
P O Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # S-4212  
Project # S-1094617**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of South Kern Industrial Center, LLC's application for the Federally Mandated Operating Permit for its biosolids co-composting facility located at 2653 Santiago Road in Taft, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,



David Warner  
Director of Permit Services

cc: Sajjad Ahmad, Permit Services Engineer

Attachments

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
FEDERALLY MANDATED OPERATING PERMITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of the Federally Mandated Operating permits to South Kern Industrial Center, LLC for its biosolids co-composting facility located at 2653 Santiago Road in Taft, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1094617, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed Federally Mandated Operating initial permits. If requested by the public, the District will hold a public hearing regarding issuance of this initial permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

**SAN JOAQUIN VALLEY  
AIR POLLUTION CONTROL DISTRICT**

**South Kern Industrial Center, LLC  
S-4212**

**Proposed Initial Title V Permit  
Engineering Evaluation**

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# INITIAL TITLE V PERMIT APPLICATION REVIEW

Project #: S-1094617  
Deemed Complete: September 14, 2009

Engineer: Sajjad Ahmad  
Date: November 2, 2011

Facility Number: S-4212  
Facility Name: South Kern Industrial Center, LLC  
Mailing Address: P.O. Box 265  
Taft CA 93268

Contact Name: Doug McCormick (President – Insight Environmental  
Consultants)  
Phone: (661) 282-2200

Responsible Official: Sam Monaco  
Title: Western Region Director

## I. PROPOSAL

South Kern Industrial Center, LLC (SKIC) is proposing that an initial Title V permit be issued for its existing co-composting operation at 2653 Santiago Road in Taft, CA. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

## II. FACILITY LOCATION

SKIC is located at 2653 Santiago Road in Taft, CA.

## III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is shown in Attachment A.

#### **IV. GENERAL PERMIT TEMPLATE USAGE**

The applicant is requesting to use the following model general permit templates:

A. Facility-wide Umbrella General Permit Template SJV-UM-0-3

The applicant has requested to utilize template #SJV-UM-03, Facility-wide Umbrella General Permit Template for unit S-4212-0-0. Based on the information submitted on the Template Qualification Form (Attachment D), the applicant qualifies for the use of this template.

#### **V. SCOPE OF EPA AND PUBLIC REVIEW**

Certain segments of the proposed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

The following permit conditions, including their underlying applicable requirements, originate from model general permit templates and are not subject to further EPA or public review.

a. S-4212-0-0 – Facility-Wide Requirements

- Conditions 1 through 40 on the proposed permit are based on the Facility-Wide Umbrella Template SJV-UM-0-3.

## VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

### Rules Addressed by Facility-Wide Umbrella Template SJV-UM-0-3

- District Rule 1100, Equipment Breakdown (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2010, Permits Required (amended December 17, 1992)
- District Rule 2020, Exemptions (amended December 20, 2007 – SIP approved amended August 18, 2011 – not SIP approved)

Recent amendment to this rule do not affect the federal applicability of this rule.

- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 2520, Federally Mandated Operating Permits [sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1, 9.13.2, 9.16 and 10.0], (amended June 21, 2001)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 4601, Architectural Coatings (amended December 17, 2009)
- District Rule 8021, Construction, Demolition, Excavation and Other Earthmoving Activities (amended August 19, 2004)
- District Rule 8031, Bulk Materials (amended August 19, 2004)
- District Rule 8041, Carryout and Trackout (amended August 19, 2004)
- District Rule 8051, Open Areas (amended August 19, 2004)

- District Rule 8061, Paved and Unpaved Roads (amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (amended September 16, 2004)
- 40 CFR Part 82, Subpart B and F, Stratospheric Ozone
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos

## **VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES**

- District Rule 1081, Source Sampling (amended December 16, 1993)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended April 21, 2011)
- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001 )
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4565, Biosolids, Animal Manure and Poultry Litter Operations (adopted March 15, 2007)
- District Rule 4702, Internal Combustion Engines – Phase 2, (amended January 18, 2007 – SIP approved amended August 18, 2011 – not SIP approved)
- 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants (NESHAPS) for Stationary Reciprocating Internal Combustion Engines (amended January 18, 2008)
- 40 CFR Part 64 – Compliance Assurance Monitoring (CAM)

## VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as Federally Enforceable through Title V Permit.

This facility is subject to the following rules that are not currently federally enforceable:

### 1. Rule 4102 – Nuisance

This rule is applicable to any source operation which emits or may emit air contaminants or other materials. This rule stipulates that a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.

For this facility, condition 41 of the facility-wide requirements S-4212-0-0 is based on the rule listed above and is not Federally Enforceable through Title V.

## IX. COMPLIANCE

### A. Requirements Addressed by Model General Permit Template

#### 1. Facility Wide Requirements

SKIC is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-3 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility wide requirements as condition numbers 1 through 40 to assure compliance with these requirements.

### B. Requirements Not Addressed by Model General Permit Template

#### 1. District Rule 1070, Inspections

##### a. Biosolids & Amendments Receiving/Mixing Operation (S-4212-1-3)

Conditions 17, 23, 26, 27, and 29 of the requirements for this permit unit are based on District Rule 1070 and are therefore not federally enforceable.

##### b. Biosolids Co-Composting Operation (S-4212-2-3)

Conditions 15, 21, 24, 25, and 27 of the requirements for this permit unit are based on District Rule 1070 and are therefore not federally enforceable.

##### c. Electrically-Driven Transportable Trommel Mill Screen Including Discharge Stack Conveyor Served by Water Spray Bars (S-4212-5-1)

Condition 4 of the requirements for this permit unit is based on District Rule 1070 and is therefore not federally enforceable.

#### 2. District Rule 1081, Source Sampling

This rule ensures that any source operation which emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination.

Units S-4212-1-3 and -2-3 are the only units subject to this rule.

- a. **S-4212-1-3:** BIOSOLIDS AND AMENDMENTS RECEIVING/MIXING OPERATION, INCLUDING AMENDMENT STORAGE AREA, FEED HOPPER WITH WATER SPRAY MISTERS, CONVEYOR DISCHARGING TO AMENDMENT PILES IN MIXING BUILDING, BIOSOLIDS UNLOADING INTO MIXING BUILDING, WITH MIXING BUILDING AND COVERED FEEDSTOCK CONVEYOR VENTED TO MIXING BUILDING BIOFILTER
- b. **S-4212-2-3:** BIOSOLIDS CO-COMPOSTING OPERATION INCLUDING TWO NEGATIVELY AERATED STATIC PILE (ASP) ACTIVE COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 19,962 SQ FT EACH), AND TWO ASP CURING COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 11,234 SQ FT EACH); INCLUDING BLOWER FANS, COOLING FANS, HUMIDIFIERS AND BIOFILTER SURFACE SPRINKLER SYSTEM

Section 5.0 lists the acceptable source test method standards if the test method is not already specified in the rule. The test methods for the these units are already specified under other applicable rules.

- Compliance with these requirements is currently ensured by conditions 18, 19, and 22 on current PTO -1-4 and conditions 16, 17, and 20 on current PTO -2-4. These conditions have been included as federally enforceable conditions 18, 19, and 22 on the proposed PTO -1-3 and conditions 16, 17, and 20 on the proposed PTO -2-3, respectively.

Section 6.1 states that for the purposes of determining compliance with an applicable standard or numerical limitation, the arithmetic mean of three test runs shall apply, unless two of the three results are above the applicable limit. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.

- Condition 18 from current PTO -1-4 and condition 16 on current PTO -2-4 have been included as federally enforceable condition 18 on the proposed PTO -1-3 and condition 16 on the proposed PTO -2-3, respectively.

Section 7.1 states that the District must be notified 30 days prior to any compliance source testing and the owner shall submit a source test plan for District approval 15 days prior to source sampling.

- Condition 24 from current PTO -1-4 and condition 22 on current PTO -2-4 have been included as federally enforceable condition 24 on the proposed PTO -1-3 and condition 22 on the proposed PTO -2-3, respectively.

Section 7.3 states that source test reports must be submitted to the District within 60 days of completion of field testing. Source tests must be submitted for all District authorized compliance source tests regardless of pass, fail or reschedule because of failure status. A District authorized compliance source test shall not be discontinued solely due to the failure of one or more runs to meet applicable standards.

- Condition 25 from current PTO -1-4 and condition 23 from current PTO -2-4 have been included as federally enforceable condition 25 on the proposed PTO -1-3 and condition 23 on the proposed PTO -2-3, respectively.

**3. District Rule 2201 - New and Modified Stationary Source Review Rule (District NSR Rule)**

District Rule 2201 was last amended on April 21, 2011. This initial Title V permit does not constitute a modification per section 3.24, defined as an action including at least one of the following items:

- 1) Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- 2) Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- 3) An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- 4) Addition of any new emissions unit which is subject to District permitting requirements.
- 5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable at this time.

#### **4. District Rule 2520 - Federally Mandated Operating Permits**

##### Mandatory Greenhouse Gas Reporting

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

#### **5. District Rule 4201, Particulate Matter Concentration**

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard. Section 3.1 requires emissions to be at or below 0.1 grains of particulate matter per dry standard cubic foot of exhaust gas.

##### **a. S-4212-4-1: 415 bhp Detroit Model 6063MK35 Diesel-Fired Emergency Standby IC Engine Powering an Electrical Generator**

- Condition 5 on the proposed PTO assures compliance with this rule.

#### **6. Rule 4565 – Biosolids, Animal Manure and Poultry Litter Operations**

This rule only applies to Biosolids Co-Composting Operation (Permit Unit S-4212-2-5) only.

##### Section 1.0 - Purpose

The purpose of this rule is to limit the emissions volatile organic compounds (VOC) from operations involving the management of Biosolids, animal manure, or poultry litter.

##### Section 2.0 - Applicability

This rule applies to all facilities whose throughput consists entirely or in part of Biosolids, animal manure, or poultry litter and the operator who landfills, land applies, composts, or co-Composts these materials.

The facility co-composts biosolids with green waste bulking agents in the operation permitted under Permit S-4212-2, therefore this rule applies to the co-composting operation permit.

## Section 5.0 - Requirements

### 5.3 Composting/Co-composting facility requirements

5.3.3 Operators with throughputs at least 100,000 wet tons per year shall meet either 5.3.3.1 or 5.3.3.2

5.3.3.1 Implement at least four (4) Class One mitigation measures in addition to one (1) Class Two mitigation measure **for active composting**.

5.3.3.2 Implement at least two (2) Class One mitigation measures, in addition to one (1) Class Two mitigation measures **for active composting and one (1) Class Two mitigation measure for curing composting**.

SKIC has elected to use two (2) Class One mitigation measures (Table 2 #1 and #5) along with two (2) Class Two mitigation measures (Table 2 #8 and #10).

Table 2 mitigation measures identified by SKIC:

#### Class One mitigation measures proposed

#1 – Scrape or sweep, at least once a day, all areas where compost is mixed, screened, or stored such that no compostable material > 1 inch in height is visible... except for compostable material in process piles or storage piles.

#5 – Cover all active compost piles within 3 hours of each turning with one of the following: a waterproof covering; at least 6 inches of finished compost; or at least 6 inches of soil.

#### Class Two mitigation measures proposed

#8 – Conduct all active composting in aerated static pile(s) vented to a VOC emission control device efficiency of at least 80% by weight.

#10 – Conduct all curing composting in aerated static pile(s) vented to a VOC emission control device efficiency of at least 80% by weight.

The requirements of section 5.3.3.2 have been satisfied with the proposed mitigation measures. Compliance with these requirements is ensured by condition 14 on the proposed Title V PTO S-4212-2-3.

#### 5.4 VOCs from Aerated Static Piles and In-Vessel Systems

5.4.1 In addition to the requirements of Section 5.3, an aerated static pile shall have no measurable increase (< 0.45 ppmv increase) over background levels of hydrocarbons within three feet of any surface of the aerated static pile.

Compliance with these requirements is ensured by condition 16 on the proposed Title V PTO S-4212-2-3.

5.4.2 In addition to the requirements of Section 5.3, an in-vessel composting operation shall .....

SKIC does not use in-vessel composting, therefore this section does not apply.

5.4.3 An operator shall test for VOCs once each calendar quarter.

5.4.3.1 The location and number of test points for aerated static pile composting system shall be determined using TMECC 02.01-B (Selection of Sampling Locations for Windrows and Piles).

5.4.3.2 The openings of an in-vessel composting system shall be tested according to the test method specified in Section 6.2.3.2.

5.4.3.3 The hydrocarbon analyzer shall meet the requirements specified in Section 6.2.4.2.

Condition 16 on the proposed Title V PTO S-4212-2-3 requires testing once per quarter and requires testing be done as required by this section, therefore compliance with 5.4.3 is also expected. SKIC has proposed an analyzer equivalent to the one identified in 6.2.4.2, stating that for safety purposes they do not want to use a test device with a flame in an area with VOCs. This is allowable with District approval of the device; therefore, compliance is expected.

5.4.5 In lieu of complying with the requirements of Section 5.4.3, an operator may use a different analyzer or test on a different schedule if the operator demonstrates, to the satisfaction of the APCO and EPA, that the alternate analyzer or alternate schedule is as indicative of system performance as the requirements Section 5.4.3.

Condition 16 on the proposed Title V PTO S-4212-2-3 also satisfies this section.

Therefore, compliance with section 5.4 is expected.

## 5.5 Biofilter requirements

5.5.1 In addition to complying with the applicable requirements of Section 5.3, an operator using a biofilter as a VOC emission control device shall maintain all biofilters at their facility in such a manner that each biofilter complies with the following conditions at all times when it is in operation:

5.5.1.1 The biofilter media temperature is between 70 degrees Fahrenheit and 110 degrees Fahrenheit,

5.5.1.2 The moisture content of the biofilter media is between 40.0% and 70.0% by weight.

5.5.1.3 The pH of the biofilter media is between 6.5 and 8.0.

5.5.1.4 Visual inspection - The biofilter media is free of observable rodent burrows, cracks, and channeling. Weed coverage shall be less than 10% of the exposed surface of the biofilter.

**Compliance is expected as discussed in 5.5.3 below.**

### 5.5.2 Biofilter Monitoring Schedule

5.5.2.1 The biofilter media shall be tested for the following properties at least once per calendar month in five separate, evenly spaced locations throughout the biofilter: temperature, moisture, and pH.

5.5.2.2 Visual inspection of biofilter media shall be performed at least once each week.

**Compliance is expected as discussed in 5.5.4 below.**

5.5.3 In lieu of complying with the requirements of Section 5.5.1, an operator may be held to a different range of values or monitor alternative parameter(s) if the operator demonstrates, to the satisfaction of the APCO and EPA, that the range of values or alternate parameter(s) is as indicative of system performance as the applicable requirements Section 5.5.1. The alternate range of the parameters listed in 5.5.1 or alternate monitoring parameter can be demonstrated by a source test.

The District has previously analyzed and evaluated the monitoring and testing data available for this permit unit to establish the normal operating ranges for pH, moisture content, and temperature, as enforced by the permit condition #15 on the proposed Title V PTO S-4212-2-3 to ensure continued compliance.

5.5.4 In lieu of complying with the requirements of Section 5.5.2, an operator may monitor on a different schedule if the operator demonstrates, to the satisfaction of the APCO and EPA, that alternate schedule is as indicative of system performance as the schedule in Section 5.5.2.

SKIC performs the weekly visual inspections identified in 5.5.2.2; however they have proposed monitoring different than 5.5.2.1 (monthly monitoring of 5 test points for temperature, moisture, and pH). As demonstrated previously, that temperature is the main indicator of proper operation of the biofilter. If the temperature is correct, then the pH and moisture are good. If the weekly temperature monitoring shows a deviation from the permitted temperature range, then at that point additional testing of moisture and pH is required (and source testing of the biofilter if the problem cannot be rectified in an appropriate amount of time).

Compliance with these requirements is ensured by conditions 15, 17, 19, 20, 23 through 26, 28, 30, and 32 on the draft Title V PTO S-4212-2-3.

#### 5.6 Non-Biofilter VOC Emission Control Device Requirements

This section of the rule does not apply, SKIC uses biofilter control devices.

#### 5.7 Source Testing Requirements for VOC Emission Control Device

5.7.1 The VOC emission control device (biofilter or non-biofilter) shall be tested for VOC control efficiency within ninety days of installation and every two years thereafter. VOC emission control devices with an active Permit-to-Operate on March 15, 2007 shall be tested for VOC control efficiency on or before September 30, 2007, and every two years thereafter.

5.7.2 The source test must be conducted under representative operating conditions with respect to seasonal conditions, compost composition, process throughput, processing of materials, and pile geometries.

5.7.3 An operator of a biofilter may request a longer time between installation and source test if the operator shows, to the satisfaction of the APCO and EPA, that a longer time is necessary. In no case shall the time between installation and the source test be greater than six (6) months.

Compliance with these requirements is ensured by conditions 26 through 31 on the proposed Title V PTO S-4212-2-3.

## 6.0 Administrative Requirements

### 6.1 Recordkeeping

#### 6.1.1 Exempt Operations Records

The co-composting operations at SKIC are not exempt from Rule 4565; therefore this section of the rule does not apply to SKIC.

#### 6.1.2 Landfill Records

SKIC does not landfill biosolids; therefore this section does not apply.

#### 6.1.3 Land Application Records

SKIC does not land apply biosolids; therefore this section does not apply.

#### 6.1.4 Composting Facility Records

An operator of a composting facility subject to this rule shall keep the following records:

##### 6.1.4.1 Throughput records

On a daily basis, an operator shall record the quantity of materials received that would be used in the compost/co-compost operation. These materials include, but are not limited to, material that may be recovered from the composting process for reuse in another batch of compostable material; biosolids; animal manure; poultry litter; and green waste.

Compliance with these requirements is ensured by conditions 36 and 37 on the proposed Title V PTO S-4212-2-3.

##### 6.1.4.2 Class One Mitigation Measure Records

An operator shall keep records that demonstrate that the facility meets the Class One mitigation measures selected for the facility each day that a mitigation measure is performed. For operators using an approved alternative Class One mitigation measure, the operator shall keep records for the alternative mitigation measure each day the alternative mitigation measure is performed.

Compliance with these requirements is ensured by condition 34 on the proposed Title V PTO S-4212-2-3.

#### 6.1.4.3 Class Two Mitigation Measure Records

An operator shall keep records according to 6.1.5 through 6.1.7, as applicable, for the composting operations subject to Class Two mitigation measures. See following sections for compliance discussion.

#### 6.1.5 VOC Inspection Records

The operator shall maintain an inspection logbook. The following information shall be contained in the logbook:

6.1.5.1 The date of the VOC inspection.

6.1.5.2 The reading of the portable hydrocarbon analyzer in ppmv for each inspection location.

6.1.5.3 If an alternate parameter is monitored, list the parameter monitored and record the level of the alternate parameter for each inspection location.

Compliance with these requirements is ensured by condition 35 on the proposed Title V PTO S-4212-2-3.

#### 6.1.6 Biofilter Records

In addition to the records required in Section 6.1.4, an operator using a biofilter as a VOC emission control device shall keep records with the following information:

6.1.6.1 Date of biofilter monitoring.

6.1.6.2 The parameter monitored and the test results for the parameter monitored.

6.1.6.3 If an alternate parameter is monitored, list the parameter monitored and record the level of the alternate parameter for each location.

Compliance with these requirements is ensured by condition 36 on the proposed Title V PTO S-4212-2-3.

#### 6.1.7 Non-Biofilter VOC Emission Control Device Records

SKIC uses biofilter control devices; therefore this section does not apply.

#### 6.1.8 Records retention

Records are required to be kept on-site for a period of five years.

Compliance with this requirement is ensured by condition 38 on the proposed Title V PTO S-4212-2-3.

#### 6.2 Test Methods

The test methods identified in Rule 4565 have been listed on the permits. Compliance with these requirements is ensured by conditions 28 through 30 on the proposed Title V PTO S-4212-2-3.

Compliance with Rule 4565 is expected.

### **7. District Rule 4702, Internal Combustion Engines–Phase 2**

This analysis is based on the latest revision (August 18, 2011) which has not been SIP approved. However, this rule only impacts the emergency IC engine at this facility, and these requirements are identical to the latest SIP approved revision (January 18, 2007). The only change is Section 5.7 has been moved to Section 5.9. Therefore, compliance with this revision ensures compliance with the SIP approved January 18, 2007 revision. No further stringency analysis is required.

The purpose of this rule is to limit the emissions of NO<sub>x</sub>, CO, VOC, and SO<sub>x</sub> from internal combustion engines. The rule applies to any engine rated at 25 bhp or greater.

Unit S-4212-4-1 is the only unit at this facility that is subject to the requirements of this rule.

Pursuant to Section 4.2, except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating nonresettable elapsed time meter.

4.2.1 In lieu of operating a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time, provided that the alternative is approved by the APCO and EPA and is allowed by the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator must demonstrate that the alternative device, method, or technique is equivalent to using a nonresettable elapsed time meter.

4.2.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

Section 3.15 defines an "Emergency Standby Engine" as an internal combustion engine which operates as a temporary replacement for primary mechanical or electrical power during an unscheduled outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the operator. An engine shall be considered to be an emergency standby engine if it is used only for the following purposes: (1) periodic maintenance, periodic readiness testing, or readiness testing during and after repair work; (2) unscheduled outages, or to supply power while maintenance is performed or repairs are made to the primary power supply; and (3) if it is limited to operate 100 hours or less per calendar year for non-emergency purposes. An engine shall not be considered to be an emergency standby engine if it is used: (1) to reduce the demand for electrical power when normal electrical power line service has not failed, or (2) to produce power for the utility electrical distribution system, or (3) in conjunction with a voluntary utility demand reduction program or interruptible power contract.

The emergency standby IC engine (permit unit S-4212-4) meets the definition of "Emergency Standby Engine" and will only have to meet the requirements of Sections 5.9 and 6.2.3 of this Rule.

Section 5.9.1.3 of this Rule requires that the owner of an engine subject to Section 4.2 of this rule shall comply with the requirements specified in Section 5.9.2 through Section 5.9.5 below:

- 5.9.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.
- 5.9.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.
- 5.9.4 Install and operate a nonresettable elapsed time meter.
  - 5.9.4.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to-Operate or Permit-Exempt Equipment Registration condition.
  - 5.9.4.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

Section 5.9.5 applies to the AO spark-ignited engine that has been retrofitted with a NOx exhaust control. Since the IC engine at this facility (permit unit S-4212-4) is not spark ignited, this section is not applicable.

Section 6.2.3 requires that an owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and submitted to the APCO upon request and at the end of each calendar year in a manner and form approved by the APCO. Compliance with these requirements is assured by conditions 8, 9, 15 thru 20, and 23 on the proposed Title V PTO S-4212-4-1.

**8. California Code of Regulations (CCR), Title 17 (Public Health), Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 7.5 (Air Toxic Control Measures), Measure 93115 (Stationary Diesel Engines)**

**Emergency Operating Requirements:**

This regulation stipulates that no owner or operator shall operate any new or in-use stationary diesel-fueled compression ignition (CI) emergency standby engine, in response to the notification of an impending rotating outage, unless specific criteria are met.

This section applies to emergency standby IC engines that are permitted to operate during non-emergency conditions for the purpose of providing electrical power. However, District Rule 4702 states that emergency standby IC engines may only be operated during non-emergency conditions for the purposes of maintenance and testing. Therefore, this section does not apply and no further discussion is required.

This ATCM requires that no owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp), that emits diesel PM at a rate greater than 0.01 g/bhp-hr and equal to or less than 0.15 g/bhp-hr, more than 50 hours per year for maintenance and testing purposes.

The ATCM also requires that in-use emergency standby engines are required to use only diesel fuels that meet the definition of CARB diesel at the time of purchase.

The ATCM also requires that no owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing, during the following periods: a) whenever there is a school sponsored activity, if the engine is located on school grounds, and b) between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. This facility is not located near any schools so these requirements are not applicable.

The ATCM also requires that owner or operator of an emergency standby diesel-fueled CI engine shall keep a monthly log of usage that shall list and document the nature of use for each of the following:

- a. Emergency use hours of operation;
- b. Maintenance and testing hours of operation;
- c. Hours of operation for any emission testing;
- d. Initial start-up hours;
- e. If applicable, hours of operation to comply with the requirements of NFPA 25;
- f. Hours of operation for all uses other than those specified above;  
and
- g. The fuel used.

The owner or operator shall document fuel use through the retention of fuel purchase records that account for all fuel used in the engine and all fuel purchased for use in the engine, and, at a minimum, contain the following information for each individual fuel purchase transaction:

- I. Identification of the fuel purchased as either CARB Diesel;
- II. Amount of fuel purchased;
- III. Date when the fuel was purchased;
- IV. Signature of owner or operator or representative of owner or operator who received the fuel; and
- V. Signature of fuel provider indicating fuel was delivered.

The ATCM requirements have been incorporated into the draft PTO S-4212-4-1 as conditions 7, 15, 17, 19, 20, and 23.

**9. 40 CFR Part 60, Subpart IIII, New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines**

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart IIII is the only subpart that applies to compression-ignited internal combustion engines.

Section 60.4200(a)(2)(i) states that the provisions of this subpart apply to owners and operators of stationary compression ignition (CI) internal combustion engines that commence construction after July 11, 2005 where the engines are manufactured after April 1, 2006 and are not fire pump engines.

This engine, permit unit S-4212-4, was installed prior to July 11, 2005 and is not subject to this subpart.

**10.40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)**

**§ 63.6580 Purpose**

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

**§ 63.6585 Applicability**

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. As such, the emergency engine at this facility (permit unit S-4212-4) is subject to this subpart.

**§ 63.6590 What parts of my plant does this subpart cover?**

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

This facility is an area source of HAP emissions; therefore, this subpart applies.

(1) Existing stationary RICE

(iii) For stationary RICE located at an area source of HAP emissions, stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

The emergency engine at this facility (permit unit S-4212-4) is defined as "existing" RICE since installation was prior to June 12, 2006.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

- (i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;
- (vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or
- (viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

The existing emergency engine (permit unit S-4212-4) at this facility is less than 500 hp and does not qualify for any of the exemptions listed in (3)(i) thru (3)(viii) above.

**§ 63.6595 When do I have to comply with this subpart?**

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

Permit unit S-4212-4 is an existing stationary CI RICE located at an area source of HAP emissions; therefore, the full compliance date for this subpart is May 3, 2013.

**§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you. Note, there are no Table 1b or Table 2b operating limitations for emergency engines.

**Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions.**

As stated in §§63.6603 and 63.6640, the following table applies to existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirements, except during periods of startup . . .	During periods of startup you must . . .
4. Emergency stationary CI RICE and black start stationary CI RICE.	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;	N/A
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	N/A
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	N/A

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

**§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

- (1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
- (2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
- (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

**§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

*(f) Requirements for emergency stationary RICE.*

(1) If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a

demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

**Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices**

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
9. Existing emergency and black start stationary RICE located at an area source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

**§ 63.6645 What notifications must I submit and when?**

There are no notifications necessary for existing emergency engines.

**§ 63.6650 What reports must I submit and when?**

There are no report submittals necessary for existing emergency engines.

**§ 63.6655 What records must I keep?**

(a) If you must comply with the emission and operating limitations, you must keep the records as follows:

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE:

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraph (f)(2) below, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

**§ 63.6660 In what form and how long must I keep my records?**

- (a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Per the discussion above, the following conditions will be placed on the draft PTOs for permit unit S-4212-4. These condition have been added as conditions 10 through 17 and 20 through 23:

- On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] - §63.6585/63.6595(a)
- On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] - §63.6625(h)
- On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] - §63.6603/63.6640 Table 2d, Row 4.a
- On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] - §63.6603/63.6640 Table 2d, Row 4.b
- On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] - §63.6603/63.6640 Table 2d, Row 4.c
- {modified 3404} This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] - §63.6625(f)

- {modified 4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] - Table 6
- {modified 3495} This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per year.\* [District Rule 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] - §63.6640(f)(ii)

\*Note hours allowed may be lower if state ATCM is the limiting factor. In this case the state ATCM allows 50 hours per year for maintenance and testing purposes.

- The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702; 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ]
- On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] - §63.6655(a)(3)/§63.10(b)(2)(viii) and §63.6655(a)(4)
- On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] - §63.6655(a)(2) and (a)(5)

- {modified 3873} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 4702, 2520, 9.4, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] - §63.6660

**11.40 CFR Part 64, Compliance Assurance Monitoring (CAM)**

**§64.2 – Applicability**

This section requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

<b>Pollutant</b>	<b>Major Source Threshold (lb/year)</b>
NO <sub>x</sub>	20,000
SO <sub>x</sub>	140,000
PM <sub>10</sub>	140,000
CO	200,000
VOC	20,000

- a. **S-4212-1-3: BIOSOLIDS AND AMENDMENTS RECEIVING/MIXING OPERATION, INCLUDING AMENDMENT STORAGE AREA, FEED HOPPER WITH WATER SPRAY MISTERS, CONVEYOR DISCHARGING TO AMENDMENT PILES IN MIXING BUILDING, BIOSOLIDS UNLOADING INTO MIXING BUILDING, WITH MIXING BUILDING AND COVERED FEEDSTOCK CONVEYOR VENTED TO MIXING BUILDING BIOFILTER**

- 1) This unit contains emission limits for PM<sub>10</sub> and VOC emissions.
- 2) Sources of PM<sub>10</sub> emissions are bulking agent feed hopper loading, conveying and mixing (with biosolids in the mixing building). PM10 emissions generated by loading amendments into the amendment feed hopper are minimized by using water spray misters (as needed to eliminate dust emissions). The bulking agents are transferred on enclosed conveyors. Biosolids are added on top of the bulking agents (as the conveyor carrying bulking agents passes by the biosolids loading area). Once the biosolids have been placed on the bulking agents, the moisture is high enough that

PM<sub>10</sub> emissions are not expected beyond that point in the process. Enclosing the biosolids receiving area and venting the biosolids receiving and mixing operations to a biofilter minimizes dust, odors and any VOCs that may be present. The water spray misters can be considered add-on control for PM<sub>10</sub> emissions. Whereas, biofilter can be considered add-on control for VOC emissions. Therefore, pre-control PM<sub>10</sub> and VOC emissions are required to be determined if this unit is subject to CAM for PM<sub>10</sub> and VOC emissions.

- 3) Water spray misters have a control efficiency of 90% (conservative estimate)
- 4) The biofilter system has 80% control efficiency for VOC emissions.

**Pre-control Annual PE for PM<sub>10</sub>:**

The pre-controlled annual PM<sub>10</sub> emissions are calculated as follows:

$$\begin{aligned}\text{Annual throughput} &= 350,000 \text{ ton/year of biosolids} + 320,000 \text{ ton/year of amendments} \\ &= 670,000 \text{ ton/year (current PTO)}\end{aligned}$$

EF for amendment feed hopper = 0.0001 lb-PM<sub>10</sub>/ton (current PTO)  
EF for conveyor transfer points = 0.000045 lb-PM<sub>10</sub>/ton (current PTO)  
Thus a combined EF for PM<sub>10</sub> = 0.000145 lb-PM<sub>10</sub>/ton

$$\begin{aligned}\text{PE} &= \text{EF (lb/ton)} \times \text{throughput (ton/yr)} \\ &= (0.000145 \text{ lb-PM}_{10}/\text{ton}) \times (670,000 \text{ ton/year}) \\ &= \mathbf{97 \text{ lb-PM}_{10}/\text{year}}\end{aligned}$$

$$\begin{aligned}\text{Pre-control PE} &= \text{PE} \div (1 - \text{CE}) \\ &= (97 \text{ lb-PM}_{10}/\text{year}) \div (1 - 0.9) \\ &= \mathbf{970 \text{ lb-PM}_{10}/\text{year}}\end{aligned}$$

Since 970 lb-PM<sub>10</sub>/yr < 140,000 lb-PM<sub>10</sub>/yr (Major Source threshold for PM<sub>10</sub>), this unit is not subject to CAM for PM<sub>10</sub> emissions.

**Pre-control Annual PE for VOC:**

Using the VOC emission factor of 0.00114 lb-VOC/ton and the annual throughput limit of 670,000 ton/year from the current PTO (350,000 ton/year of biosolids + 320,000 ton/year of amendments), the pre-controlled annual emissions are calculated as follows:

$$\begin{aligned}\text{PE} &= \text{EF (lb/ton)} \times \text{throughput (ton/yr)} \\ &= (0.00114 \text{ lb-VOC/ton}) \times (670,000 \text{ ton/year}) \\ &= \mathbf{764 \text{ lb-VOC/year}}\end{aligned}$$

$$\begin{aligned}\text{Pre-control PE} &= \text{PE} \div (1 - \text{CE}) \\ &= (764 \text{ lb-VOC/year}) \div (1 - 0.8) \\ &= \mathbf{3,820 \text{ lb-VOC/year}}\end{aligned}$$

Since 3,820 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

- b. S-4212-2-3:** BIOSOLIDS CO-COMPOSTING OPERATION INCLUDING TWO NEGATIVELY AERATED STATIC PILE (ASP) ACTIVE COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 19,962 SQ FT EACH), AND TWO ASP CURING COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 11,234 SQ FT EACH); INCLUDING BLOWER FANS, COOLING FANS, HUMIDIFIERS AND BIOFILTER SURFACE SPRINKLER SYSTEM

- 1) This unit contains emission limits for VOC emissions only.
- 2) This unit is served by biofilters, which will be considered add-on control for VOC emissions.
- 3) The biofilter system has 80% control efficiency for VOC emissions.

**Pre-control Annual PE:**

Using the permitted VOC emission factor of 0.23826 lb-VOC/ton and the annual throughput limit of 670,000 ton/year from the current PTO, the pre-controlled annual emissions are calculated as follows:

$$\begin{aligned}\text{PE} &= \text{EF (lb/ton)} \times \text{throughput (ton/yr)} \\ &= (0.23826 \text{ lb-VOC/ton}) \times (670,000 \text{ ton/year}) \\ &= \mathbf{159,634 \text{ lb-VOC/year}}\end{aligned}$$

$$\begin{aligned}\text{Pre-control PE} &= \text{PE} \div (1 - \text{CE}) \\ &= (159,634 \text{ lb-VOC/year}) \div (1 - 0.8) \\ &= \mathbf{798,170 \text{ lb-VOC/year}}\end{aligned}$$

Since 798,170 lb-VOC/yr > 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is subject to CAM for VOC emissions.

### **§64.3 - Monitoring Design Criteria**

This section specifies the design criteria for the CAM system.

**Paragraph (a) (General criteria)** requires that the CAM system be designed to obtain data for one or more appropriate indicators of emission control system performance and requires the owner to establish appropriate ranges or designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.

As shown above, the biosolids composting operation (S-4212-2-3) is served by biofilters that are subject to CAM. The biofilters reduce VOC emissions by passing collected vapors through media at specified temperatures, moisture content and residence time to allow for the biological conversion of organic compounds to water vapor and carbon dioxide. These control devices are passive systems that do not include mechanical systems that can be monitored for performance.

SKIC is required to monitor biofilter operational parameters to ensure compliance with the approved emissions limitations. SKIC has elected to utilize these same parameters for compliance with CAM requirements. Therefore, the requirements of this section have been satisfied.

**Paragraph (b) (Performance criteria)** requires the owner or operator to establish and maintain the following:

- Specifications to ensure that representative data are collected.

Periodic monitoring of the biofilter temperatures, pH, moisture content and fan static pressure is collected to ensure proper operation of the biofilters. SKIC has collected and provided sufficient data to the District for this operation. This data has been previously analyzed by the District (see Attachment E) to establish monitoring parameters for each biofilter operating in compliance to justify the daily, weekly and/or monthly readings as representative.

- Verification procedures to confirm the operational status of the monitoring for new or modified monitoring equipment.

No new or modified monitoring equipment is proposed; therefore, further discussion is not required.

- Quality assurance and control practices to ensure continuing validity of data.

Periodic (at least once every 24 months) source tests; daily monitoring of fan discharge pressure; weekly monitoring of each biofilter for temperature, compaction, channeling (cracks), vegetative growth and noticeable increase in detectable odor; monthly monitoring of biofilter temperature, moisture and pH; and monthly VOC monitoring within three feet of any aerated static pile are an ongoing satisfactory indicator of control system performance. Additional practices are not warranted for this facility.

- Data collection frequency and procedures.

§64.3(b)(4) states that specifications for the frequency of conducting the monitoring, the data collection procedures that will be used (e.g., computerized data acquisition and handling, alarm sensor, or manual log entries based on gauge readings), and, if applicable, the period over which discrete data points will be averaged for the purpose of determining whether an excursion or exceedance has occurred.

(i) At a minimum, the owner or operator shall design the period over which data are obtained and, if applicable, averaged consistent with the characteristics and typical variability of the pollutant-specific emissions unit (including the control device and associated capture system). Such intervals shall be commensurate with the time period over which a change in control device performance that would require actions by owner or operator to return operations within normal ranges or designated conditions is likely to be observed.

(ii) For all pollutant-specific emissions units with the potential to emit, calculated including the effect of control devices, the applicable regulated air pollutant in an amount equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, for each parameter monitored, the owner or operator shall collect four or more data values equally spaced over each hour and average the values, as applicable, over the applicable averaging period as determined in accordance with paragraph (b)(4)(i) of this section. The permitting authority may approve a reduced data collection frequency, if appropriate, based on information presented by the owner or operator concerning the data collection mechanisms available for a particular parameter for the particular pollutant-specific emissions unit (e.g., integrated raw material or fuel analysis data, noninstrumental measurement of waste feed rate or visible emissions, use of a portable analyzer or an alarm sensor).

(iii) For other pollutant-specific emissions units, the frequency of data collection may be less than the frequency specified in paragraph (b)(4)(ii) of this section but the monitoring shall include some data collection at least once per 24-hour period (e.g., a daily inspection of a carbon adsorber operation in conjunction with a weekly or monthly check of emissions with a portable analyzer).

Periodic (at least once every 24 months) source tests; daily monitoring of fan discharge pressure; weekly monitoring of each biofilter for temperature, compaction, channeling (cracks), vegetative growth and noticeable increase in detectable odor; monthly monitoring of biofilter temperature, moisture and pH; and monthly VOC monitoring within three feet of any aerated static pile are an ongoing satisfactory indicator of control system performance. Additional practices are not warranted for this facility.

SKIC is currently required to maintain records of all emissions testing and biofilter monitoring activities and make such records readily available for District inspection upon request. SKIC's existing data collection and retention procedures assure correct compliance with 40 CFR Part 64.

Conditions of approval numbers 15 through 28 will be amended to include a reference to 40 CFR Part 64.

**Paragraph (c) (Evaluation factors)** requires the owner or operator to take into account site specific factors in the design of the CAM system.

This paragraph states "In designing monitoring to meet the requirements of this section, the owner or operator shall take into account site-specific factors including the applicability of existing monitoring equipment and procedures, the ability of the monitoring to account for process and control device operational variability, the reliability and latitude built into the control technology, and the level of actual emissions relative to the compliance limitation."

The proposed CAM plan utilizes the existing District approved biofilter monitoring parameters that have been demonstrated to effectively ensure compliance. Therefore, no additional factors need to be evaluated and the requirements of this section are satisfied. No further discussion is required.

**Paragraph (d) Special criteria for the use of continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS) or predictive emission monitoring system (PEMS).**

A CEMS, COMS or PEMS is not necessary or required for the subject emission unit. Therefore, the requirements of this section are not applicable and no further discussion is required.

**§64.4 - Submittal Requirements**

This section specifies submittal requirements for the owner or operator which ensure the CAM system will comply with the design criteria of §64.3. SKIC has submitted a complete CAM system proposal that specifies the parameters to be monitored in accordance with §64.3 above. Therefore, SKIC has satisfied the requirements of this section and no further discussion is required.

**§64.5 - Deadlines for Submittals**

This section specifies required timing for submittals required under §64.4.

*Large pollutant-specific emissions units* (those with controlled emissions exceeding major source thresholds) are required to make the submittals as a part of the initial Title V permit application where the application has either not been filed or has not been deemed complete. Where the initial Title V permit has been issued without implementation of 40 CFR 64, the owner or operator must make the required submittals as a part of a subsequent application for any significant permit revision. If the required information is not submitted by either of these deadlines, it must be submitted as a part of the application for the Title V permit renewal.

For other pollutant-specific emissions units, the required submittal deadline is the application for Title V permit renewal. SKIC has submitted their CAM proposal along with this application for the initial Title V permit. Therefore, SKIC has satisfied the submittal deadline requirements of this section and no further discussion is required

**§64.6 - Approval of monitoring**

This section stipulates the following:

- A requirement that the permitting authority act to approve the proposed monitoring by confirming that the monitoring submitted

complies with the requirements of §64.3.

- An allowance for the permitting authority to condition the approval based on collecting additional data on the indicators to be monitored, including performance or compliance testing.
- The minimum conditions that must be placed on the permit in the event that the proposed monitoring is approved by the permitting authority including a milestone schedule for completion of any conditional approval actions required by the owner or operator, such as installations, testing, or verification of operational status.
- Actions required by the permitting authority in the event that the proposed monitoring is not approved.

The CAM submittal requirements and stipulations for approval of such submittals pursuant to §64.4, §64.5, and §64.6 have been completed in conjunction with the application and review process for the issuance of the Authorities to Construct issued by the District and the initial Title V permit. Therefore, SKIC is in compliance with the requirements of this section and no further discussion is required.

#### **§64.7 - Operation of Approved Monitoring**

This section stipulates the following:

- Requirements that the owner or operator 1) commence the monitoring upon receipt of a Title V permit that includes such monitoring, 2) properly maintain the monitoring system, and 3) conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating.
- Exemption to continuous monitoring during malfunctions, associated repairs, and quality assurance and control activities.
- Actions required by the owner or operator in response to excursions or exceedances.
- A requirement for the owner or operator to document any need for improved monitoring based upon either an identification of a failure of the monitoring system to identify an excursion or exceedance or upon the results of compliance or performance testing that identifies a need to modify the monitoring.

The following condition is included as condition 38 on the proposed Title V permit S-4212-2-3 to ensure compliance:

- The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64.7]

### **§64.8 - Quality Improvement Plan (QIP) Requirements**

This section stipulates that the Administrator or the permitting authority may require that the facility develop and implement a QIP in the event of a determination of a need for improved monitoring pursuant to §64.1. §64.8 also identifies the minimum elements required in the QIP and requires that the facility implement the QIP as expeditiously as possible, with implementation not exceeding 180 days after the date that the need for implementation was identified unless the permitting authority is notified.

The following condition is included as condition 39 on the proposed Title V permit S-4212-2-3 to ensure compliance:

- If the District or EPA determine that a quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the quality improvement plan in accordance with 40 CFR part 64.8. [40 CFR 64.8]

### **§64.9 - Reporting and Recordkeeping Requirements**

This section stipulates the minimum reporting and recordkeeping requirements for facilities subject to 40 CFR 64.

- Condition 34, 35, 36, and 37 of the existing permit to operate assures compliance with the recordkeeping requirements of this section.

The following condition is included as condition 40 on the proposed Title V permit S-4212-2-3 to ensure compliance:

- The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR 64.9]

### **§64.10 - Savings Provisions**

This section states that the purpose of 40 CFR 64 is to require, as a part of the issuance of a Title V permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of 40 CFR 64. In addition, §64.10 states that nothing in 40 CFR 64 shall excuse an owner or operator from any other requirements of federal, state or local law or restrict or abrogate the authority of the Administrator or of the permitting authority.

Improved or new monitoring requirements are not applicable to this permit unit. Therefore, SKIC has satisfied the requirements of this section and no further discussion is required.

- c. **S-4212-3-2:** FINISHED COMPOSTING PRODUCT SCREENING AND STACKING OPERATION, INCLUDING FEED HOPPERS, CONVEYORS, TWO TROMMEL SCREENS, DISCHARGE CONVEYORS AND STACKOUT CONVEYORS EQUIPPED WITH OPERATIONAL WATER SPRAY BAR(S)

This unit is not subject to CAM since there are no emission limits.

- d. **S-4212-4-1:** 415 BHP DETROIT MODEL 6063MK35 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

The permit unit has emissions limits for NO<sub>x</sub>, SO<sub>x</sub>, CO, PM<sub>10</sub>, and VOC emissions but no add-on controls. Therefore, this unit is not subject to CAM for these pollutants.

- e. **S-4212-5-1:** TRANSPORTABLE TROMMEL MILL SCREEN POWERED BY LIMITED LIFE TIER 2 125 BHP DEERE MODEL 4045H DIESEL-FIRED IC ENGINE INCLUDING DISCHARGE STACKOUT CONVEYOR SERVED BY WATER SPRAY BARS

This unit is not subject to CAM since there are no emission limits.

## **X. PERMIT SHIELD**

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

### **A. Requirements Addressed by Model General Permit Templates**

By using the model general permit template SJV-UM-0-3, the applicant has requested that a permit shield be issued for requirements addressed in the template. The basis for each permit shield is discussed in the Permit Shield Section V of Template SJV-UM-0-3. This permit shield is included in conditions 39 and 40 of the facility wide requirements S-4212-0-0.

## **B. Requirements not Addressed by Model General Permit Templates**

The applicant does not request a permit shield for the requirements not addressed by the general permit templates. No permit shield is being granted for the requirements not addressed by the general permit templates.

## **XI. PERMIT CONDITIONS**

See Attachment B for draft operating permits.

## **XII. ATTACHMENTS**

ATTACHMENT A – DETAILED FACILITY PRINTOUT  
ATTACHMENT B – PROPOSED TITLE V PERMITS  
ATTACHMENT C – CURRENT DISTRICT PERMITS  
ATTACHMENT D – TEMPLATE QUALIFICATION FORM  
ATTACHMENT E – MONITORING PARAMETERS

# Attachment A

## Detailed Facility Printout

**Detailed Facility Report**  
For Facility=4212 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

SOUTH KERN INDUSTRIAL CENTER LLC 2653 SANTIAGO ROAD TAFT, CA 93268	FAC #	S 4212	TYPE:	TitleV	EXPIRE ON:	02/29/2012
	STATUS:	A	TOXIC ID:		AREA:	71
	TELEPHONE:				INSP. DATE:	08/12

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-4212-1-5	400 hp	3020-01 F	1	607.00	607.00	A	BIOSOLIDS AND AMENDMENTS RECEIVING/MIXING OPERATION, INCLUDING AMENDMENT STORAGE AREA, FEED HOPPER WITH WATER SPRAY MISTERS, CONVEYOR DISCHARGING TO AMENDMENT PILES IN MIXING BUILDING, BIOSOLIDS UNLOADING INTO MIXING BUILDING, WITH MIXING BUILDING AND COVERED FEEDSTOCK CONVEYOR VENTED TO MIXING BUILDING BIOFILTER.
S-4212-2-5	1000 hp	3020-01 G	1	815.00	815.00	A	BIOSOLIDS CO-COMPOSTING OPERATION INCLUDING TWO NEGATIVELY AERATED STATIC PILE (ASP) ACTIVE COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 19,962 SQ FT EACH), AND TWO ASP CURING COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 11,234 SQ FT EACH); INCLUDING BLOWER FANS, COOLING FANS, HUMIDIFIERS AND BIOFILTER SURFACE SPRINKLER SYSTEM
S-4212-3-1	330 hp	3020-01 E	1	412.00	412.00	A	FINISHED COMPOSTING PRODUCT SCREENING AND STACKING OPERATION, INCLUDING FEED HOPPERS, CONVEYORS, TWO TROMMEL SCREENS, DISCHARGE CONVEYORS AND STACKOUT CONVEYORS EQUIPPED WITH OPERATIONAL WATER SPRAY BAR(S)
S-4212-4-0	415 bhp IC engine	3020-10 D	1	479.00	479.00	A	415 BHP DETROIT MODEL 6063MK35 DIESEL-FIRED EMERGENCY IC ENGINE POWERING ELECTRICAL GENERATOR.
S-4212-5-2	miscellaneous	3020-06	1	105.00	105.00	A	ELECTRICALLY-DRIVEN TRANSPORTABLE TROMMEL MILL SCREEN INCLUDING DISCHARGE STACK CONVEYOR SERVED BY WATER SPRAY BARS

Number of Facilities Reported: 1

# Attachment B

## PROPOSED TITLE V Permits

# INSPECTION WORKSHEET

EXPIRATION DATE: 02/29/2012

**LEGAL OWNER OR OPERATOR:** SOUTH KERN INDUSTRIAL CENTER LLC  
**MAILING ADDRESS:** PO BOX 265  
TAFT, CA 93268

**LOCATION:** 2653 SANTIAGO ROAD  
TAFT, CA 93268

**INSPECT PROGRAM PARTICIPANT:** NO

**EQUIPMENT DESCRIPTION:**  
FACILITY-WIDE REQUIREMENTS

## CONDITIONS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

- 10. {4371}** The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. {4372}** Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. {4373}** If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. {4374}** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. {4375}** The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. {4376}** The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. {4377}** The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. {4378}** The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. {4379}** Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. {4380}** Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. {4381}** Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. {4382}** Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 22. {4383}** No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

- INSPECTION WORKSHEET
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
  24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
  25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
  26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
  27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
  28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
  29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
  30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
  31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
  32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
  33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
  34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
  35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

- INSPECTION WORKSHEET
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
  37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
  38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
  39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
  40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
  41. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-1-3

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

BIOSOLIDS AND AMENDMENTS RECEIVING/MIXING OPERATION, INCLUDING AMENDMENT STORAGE AREA, FEED HOPPER WITH WATER SPRAY MISTERS, CONVEYOR DISCHARGING TO AMENDMENT PILES IN MIXING BUILDING, BIOSOLIDS UNLOADING INTO MIXING BUILDING, WITH MIXING BUILDING AND COVERED FEEDSTOCK CONVEYOR VENTED TO MIXING BUILDING BIOFILTER

## PERMIT UNIT REQUIREMENTS

1. Air pollution equipment (blower fans, ducting, biofilter, etc) shall be properly maintained in good operating condition at all times, except for times of maintenance and/or repair allowed by conditions below. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Each biofilter blower fan may be shut down for a total of 48 hours per 6-month time period for the purpose of maintenance and/or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Feedstock mixing shall be performed in the mixing building, and mixing building shall be vented to biofilter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Conveyors transferring feedstock from mixing building to feedstock pad shall be covered and ventilated to receiving building biofilter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Biofilter shall be equipped with operational humidifier and sprinkler systems, and shall be used as needed to maintain optimum biofilter media moisture content. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Amendment feed hopper shall be equipped with operational mist type water spray, and used as needed to ensure visible emissions do not exceed 5% opacity for more than 3 minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC destruction efficiency across the biofilter serving the mixing building shall not be less than 80%, or total VOC emission rate from mixing building shall not exceed 2 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. NH3 destruction efficiency across the biofilter serving the mixing building shall not be less than 80%, or total NH3 emission rate from mixing building shall not exceed 2 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. There shall be no visible emissions greater than 5% opacity for more than three minutes in any one hour, from receiving/mixing operation amendment truck unloading, feed hopper loading, outdoor conveyor transfer points, or feed stock stacking conveyor. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Maximum quantity of biosolids introduced into the feedstock mixers shall not exceed 350,000 wet tons on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Maximum quantity of amendment introduced into the feedstock mixing operation shall not exceed 320,000 wet tons on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Maximum quantity of feedstock discharged from the mixing operation shall not exceed 6,466 wet tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Emissions from amendment feed hopper shall not exceed 0.0001 lb-PM10/ton. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions from amendment conveyor transfer points shall not exceed 4.5E-5 lb-PM10/ton. [District Rule 2201] Federally Enforceable Through Title V Permit
15. VOC emissions from the biofilter serving the mixing building shall not exceed 7.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Combined VOC emissions from S-4212-1, '-2 and '-7 shall not exceed 160,398 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. NH3 emissions from the biofilter shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Biofilter media shall be maintained such that the pH remains between 5.0 and 8.0, moisture content between 40 and 80% and temperature between 50 and 95 degrees F, as measured at a depth of at least 2 feet below the media surface. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Biofilter discharge surface, for testing and monitoring purposes, shall be divided into sixteen uniformly sized areas (grids). When source testing the biofilter, a minimum of 8 representative grid points shall be used. [District Rule 1070] Federally Enforceable Through Title V Permit
20. Biofilter exhaust blower discharge pressure shall not exceed 5.0 psig. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Biofilter exhaust blower discharge pressure shall be monitored weekly to ensure system pressure is within permitted operating range. [District Rule 1081] Federally Enforceable Through Title V Permit
22. Biofilter moisture, pH and temperature shall be monitored monthly by sampling one central grid location. Samples shall be taken at two depths beneath the surface. Samples shall be analyzed at in-house laboratory within 48 hours of collection. After collection of biofilter media samples, any sample holes shall be re-filled immediately with the excavated material. [District Rule 1081] Federally Enforceable Through Title V Permit
23. Biofilter media shall be "fluffed" or replaced as needed to maintain the exhaust blower discharge pressure within the normal operating range. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Vegetative growth shall not exceed 10% of the total biofilter surface. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Biofilter shall be checked visually at least weekly for compaction, channeling (cracks), vegetative growth or noticeable increase in detectable odors. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Biofilter media temperature shall be monitored weekly by inserting a manual temperature probe into each biofilter grid location, waiting approximately 30 to 90 seconds for the temperature to stabilize, then recording the temperature. [District Rule 1081] Federally Enforceable Through Title V Permit
27. If any biofilter media temperature reading is out of range, then the biofilter moisture and pH shall be tested, and recorded, for the corresponding grid(s). [District Rule 1081] Federally Enforceable Through Title V Permit
28. If any biofilter monitoring parameter is out of range, the applicant shall perform the necessary maintenance to return the media parameter(s) to the permitted range within 1 week of detecting the problem. All grids which tested out of range shall be re-tested within one week. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Demonstration of compliance with biofilter VOC daily emissions limit (DEL) and control efficiency shall be made within 60 days of replacement of spent media which requires more than 50% of the biofilter media to be replaced. If any ASP biofilters are replacing media concurrent with the replacement of the mixing building biofilter media, then the ASP biofilter source testing may be used as representative testing in demonstrating compliance with VOC control efficiency requirement for the mixing building biofilter. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

30. District witnessed source testing of biofilter performed to measure VOC and NH3 inlet concentrations, inlet flowrate, and VOC and NH3 destruction efficiencies across the biofilter, shall be performed by an independent testing laboratory certified for SCAQMD methods 25.3, 207.1, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1. [District Rule 1070] Federally Enforceable Through Title V Permit
31. The following biofilter test methods shall be used: Biofilter temperature - EPA method 170.1, moisture content - TMECC 03.09 (Total solids and moisture at 70+/-5 degrees centigrade), media pH - TMECC 04.11-A (1:5 slurry pH), VOC leaks - EPA Method 21 (VOC leaks), and hydrocarbon analyzer for VOCs calibrated with certified zero and 10 ppmv methane standards. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Operator may use an alternate test method to those listed above for which written approval of the APCO has been obtained. [District Rule 1081] Federally Enforceable Through Title V Permit
33. District shall be notified at least 30 days prior to any compliance source testing, and a source test plan shall be submitted for approval at least 15 days prior to testing. Official test results and field test data from compliance testing shall be submitted within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
34. The following operating parameters shall be documented during times of testing: biofilter exhaust blower discharge pressure and temperature, biofilter air flow, biofilter media temperature (all 16 grids), moisture content and pH (Only two samples of moisture and pH required, samples to be taken at one central location (from at least two feet deep)). Moisture and pH shall also be sampled, and recorded, for every grid in which the temperature is found to be out of the permitted range. [District Rule 1070] Federally Enforceable Through Title V Permit
35. VOC and NH3 samples shall be analyzed by a lab certified by SCAQMD to perform identified SCAQMD test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
36. Records shall be kept of wet tons per day of biosolids fed into the feedstock mixing operation, daily amendment mix ratio, monthly biofilter temperature, moisture and pH readings, weekly biofilter media temperature and exhaust blower discharge pressure readings, associated biofilter grid locations, and annual VOC emissions on a 12 month rolling average. Records shall be kept of visual inspections and actions taken to correct compaction (and/or high biofilter blower fan pressure(s)), channeling, excessive vegetative growth or a noticeable increase in odors, including date of inspection and date actions were taken to correct problem(s). Records shall be kept of dates and hours each biofilter fan is shutdown for maintenance and/or repair. Records shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4212-2-3

EXPIRATION DATE: 02/29/2012

## EQUIPMENT DESCRIPTION:

BIOSOLIDS CO-COMPOSTING OPERATION INCLUDING TWO NEGATIVELY AERATED STATIC PILE (ASP) ACTIVE COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 19,962 SQ FT EACH), AND TWO ASP CURING COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 11,234 SQ FT EACH); INCLUDING BLOWER FANS, COOLING FANS, HUMIDIFIERS AND BIOFILTER SURFACE SPRINKLER SYSTEM

## PERMIT UNIT REQUIREMENTS

1. Active and curing phase composting shall be performed in negatively-aerated static piles (ASPs) with engineered, under pile, grid aeration system venting to a biofilter. [District Rules 2201 and 4565] Federally Enforceable Through Title V Permit
2. ASP biofilters shall be equipped with operational humidifier and sprinkler systems, and shall be used, as needed, to maintain optimum biofilter media moisture content. [District Rules 2201 and 4565] Federally Enforceable Through Title V Permit
3. Air pollution equipment (blower fans, ducting, biofilters, etc) shall be properly maintained in good operating condition at all times, except for times of maintenance and/or repair allowed by conditions below. [District Rules 2201 and 4565] Federally Enforceable Through Title V Permit
4. Each biofilter blower fan may be shut down for a total of 48 hours per 6-month time period for the purpose of maintenance and/or repair. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All active phase ASPs shall be covered with finished compost or wood chips. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC destruction efficiency across each biofilter serving the active phase compost ASPs shall not be less than 80%, or total VOC emission rate shall not exceed 2 pounds in any one day. [District Rules 2201 and 4565] Federally Enforceable Through Title V Permit
7. NH<sub>3</sub> destruction efficiency across each biofilter serving the active phase compost ASPs shall not be less than 80%, or total NH<sub>3</sub> emission rate shall not exceed 2 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Maximum quantity of feedstock (mixed biosolids and amendments) introduced into active phase compost ASPs shall not exceed 6,466 tons/day nor 670,000 tons/year (based on a rolling 12 months). [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC emissions from this permit unit (includes all ASP surfaces and biofilters serving ASPs) shall not exceed 0.23826 lb/ton throughput. Throughput is defined as wet ton, as mixed, feedstock introduced into active phase compost ASPs. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC emissions from the biofilters serving the active and curing phase composting shall not exceed 1,135.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Combined VOC emissions from S-4212-1, '-2 and '-7 shall not exceed 160,398 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. NH<sub>3</sub> emissions from this permit unit (includes all ASP surfaces and biofilters serving ASPs) shall not exceed 0.2203 lb/ton throughput. Throughput is defined as wet ton, as mixed, feedstock introduced into active phase compost ASPs. [District Rule 2201] Federally Enforceable Through Title V Permit
13. NH<sub>3</sub> emissions from the biofilters serving the active and curing phase composting shall not exceed 279.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall implement at least two (2) Rule 4565 class one mitigation measures, in addition to one (1) class two mitigation measures for active composting and one (1) class two mitigation measure for curing composting. [District Rule 4565] Federally Enforceable Through Title V Permit
15. Biofilter media shall be maintained such that the pH remains between 4.5 and 8.0, moisture content between 45 and 80% and temperature between 90 and 115 degree F, as measured at a depth of at least 2 feet below the media surface. [District Rules 2201 and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
16. Aerated Static Piles shall have no measurable increase (<0.45 ppmv increase) over background levels of hydrocarbons within three feet of any surface of any aerated static pile. Testing shall be performed once per quarter in accordance with the requirements of Rule 4565 section 5.4 using a District approved analyzer. [District Rule 4565 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
17. Every ASP biofilter temperature, moisture and pH shall be monitored monthly by sampling at least one central grid location. Samples shall be taken at two depths beneath the surface. Samples shall be analyzed at in-house laboratory within 48 hours of collection. After collection of biofilter media samples, any sample holes shall be re-filled immediately with the excavated material. [District Rules 1081 and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
18. Biofilter exhaust blower discharge pressure shall not exceed 5.0 psig. [District Rules 2201 and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
19. Biofilter discharge surface, for testing and monitoring purposes, shall be divided into sixteen uniformly sized areas (grids). When source testing the biofilter, a minimum of 8 representative grid points shall be used. [District Rule 1070 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
20. ASP Biofilter exhaust blower discharge pressures shall be monitored daily to ensure system pressures are within permitted operating range. [District Rules 1081 and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
21. Biofilter media shall be "fluffed" or replaced, as needed, to maintain the exhaust blower discharge pressures within the permitted operating range. [District Rule 2201 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
22. Vegetative growth shall not exceed 10% of the total biofilter surface. [District Rules 2201 and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
23. Biofilter shall be checked visually at least weekly for compaction, channeling (cracks), vegetative growth or noticeable increase in detectable odors. [District Rules 2201 and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
24. Biofilter media temperature shall be monitored weekly by inserting a manual temperature probe into each biofilter grid location, waiting approximately 30 to 90 seconds for the temperature to stabilize, then recording the temperature. [District Rule 1081 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
25. If any ASP biofilter media temperature reading is out of range, then the biofilter moisture and pH shall be tested, and recorded, for the corresponding grid(s). [District Rule 1081 and 40 CFR 64.3] Federally Enforceable Through Title V Permit
26. If any biofilter monitoring parameter is out of range, the applicant shall perform the necessary maintenance to return the media parameter(s) to the permitted range within 1 week of detecting the problem. All grids which tested out of range shall be re-tested within one week. If any grid is still out of range during the re-test, then source testing of the biofilter shall be performed within 60 days to show compliance with the emissions limit and VOC control efficiency of the biofilter. [District Rule 2201 and 40 CFR 64.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

27. Demonstration of compliance with biofilter VOC daily emissions limit (DEL) and control efficiency shall be performed no less than once every two years and within 60 days of replacement of spent media or a maintenance (or repair) event which requires more than 50% of the biofilter media to be disturbed. [District Rules 1070, 2201, and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
28. The following biofilter test methods shall be used: Biofilter temperature - EPA method 170.1, moisture content - TMECC 03.09 (Total solids and moisture at 70+/-5 degrees centigrade), media pH - TMECC 04.11-A (1:5 slurry pH), VOC leaks - EPA Method 21 (VOC leaks), and hydrocarbon analyzer for VOCs calibrated with certified zero and 10 ppmv methane standards. [District Rules 1081 and 4565; and 40 CFR 64.3] Federally Enforceable Through Title V Permit
29. District witnessed source testing to determine inlet and outlet VOC concentrations, flowrate, and destruction efficiency across every biofilter shall be performed not less than once every two years by an independent testing laboratory certified for SCAQMD test methods 25.3, 207.1, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1. [District Rules 1070 and 4565] Federally Enforceable Through Title V Permit
30. Operator may use an alternate test method to those listed above for which written approval of the APCO has been obtained. [District Rules 1081 and 4565] Federally Enforceable Through Title V Permit
31. District shall be notified at least 30 days prior to any compliance source testing, and a source test plan shall be submitted for approval at least 15 days prior to testing. Official test results and field test data from compliance testing shall be submitted within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The following operating parameters shall be documented during times of testing: biofilter exhaust blower discharge pressure and temperature, biofilter air flow, biofilter media temperature (all 16 grids), moisture content and pH (Only two samples of moisture and pH required, samples to be taken at one central location (from at least two feet deep)). Moisture and pH shall also be sampled, and recorded, for every grid in which the temperature is found to be out of the permitted range. [District Rule 1070] Federally Enforceable Through Title V Permit
33. VOC samples shall be analyzed by a lab certified by SCAQMD to perform identified SCAQMD test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Records shall be kept that demonstrate that the facility meets the Rule 4565 class one mitigation measures selected each day that a mitigation measure is performed. [District Rule 4565] Federally Enforceable Through Title V Permit
35. Operator shall maintain an inspection logbook which contains the quarterly VOC hydrocarbon analyzer readings in ppmv for each inspection location (on surface of the ASP), along with the date of the inspection. [District Rule 4565] Federally Enforceable Through Title V Permit
36. Records shall be kept of wet tons per day of biosolids fed into the feedstock mixing operation, daily amendment mix ratio, monthly biofilter temperature, moisture and pH readings, weekly biofilter media temperature and exhaust blower discharge pressure readings, associated biofilter grid locations, and annual VOC emissions on a 12 month rolling average. Records shall be kept of visual inspections and actions taken to correct compaction (and/or high biofilter blower fan pressure(s)), channeling, excessive vegetative growth or a noticeable increase in odors, including date of inspection and date actions were taken to correct problem(s). Records shall be kept of dates and hours each biofilter fan is shutdown for maintenance and/or repair. [District Rules 1070 and 4565] Federally Enforceable Through Title V Permit
37. All records shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rules 1070 and 4565] Federally Enforceable Through Title V Permit
38. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64.7] Federally Enforceable Through Title V Permit
39. If the District or EPA determine that a quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the quality improvement plan in accordance with 40 CFR part 64.8. [40 CFR 64.8] Federally Enforceable Through Title V Permit
40. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR 64.9] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-3-2

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

FINISHED COMPOSTING PRODUCT SCREENING AND STACKING OPERATION, INCLUDING FEED HOPPERS, CONVEYORS, TWO TROMMEL SCREENS, DISCHARGE CONVEYORS AND STACKOUT CONVEYORS EQUIPPED WITH OPERATIONAL WATER SPRAY BARS

## PERMIT UNIT REQUIREMENTS

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1. There shall be no visible emissions greater than 5% opacity for more than three minutes in any one hour from compost conveyors, conveyor transfer points, screens or conveyor transfer to stock piles. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Water spray bars shall be operated, as needed, to ensure no visible emissions greater than 5% opacity for more than three minutes in any one hour from the stacking conveyor discharging to stock pile(s). [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC and NH<sub>3</sub> emissions shall not exceed 0 lb/day from the screening, stacking and loadout operations. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4212-4-1

EXPIRATION DATE: 02/29/2012

## EQUIPMENT DESCRIPTION:

415 BHP DETROIT MODEL 6063MK35 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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1. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. The sulfur content of the diesel fuel used shall not exceed 0.05% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from this engine shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 5.70 grams/hp-hr, CO: 0.40 grams/hp-hr or VOC: 0.14 grams/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The PM<sub>10</sub> emissions rate shall not exceed 0.08 grams/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
9. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
10. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
11. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
14. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
16. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
17. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 2201 and 4702; 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
19. The permittee shall maintain monthly records that include the type of fuel purchased, the amount of fuel purchased, and the date of fuel purchase. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
20. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702; 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
21. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
23. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4702, 17 CCR 93115, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-5-1

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

TRANSPORTABLE TROMMEL MILL SCREEN POWERED BY LIMITED LIFE TIER 2 125 BHP DEERE MODEL 4045H DIESEL-FIRED IC ENGINE INCLUDING DISCHARGE STACKOUT CONVEYOR SERVED BY WATER SPRAY BARS

## PERMIT UNIT REQUIREMENTS

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1. There shall be no visible emissions greater than 5% opacity for more than three minutes in any one hour from compost conveyors, conveyor transfer points, screens or conveyor transfer to stock piles. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Water spray bars shall be operated, as needed, to ensure no visible emissions greater than 5% opacity for more than three minutes in any one hour from the stacking conveyor discharging to stock pile(s). [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC and NH3 emissions shall not exceed 0 lb/day from the screening, stacking and loadout operations. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# Attachment C

## CURRENT DISTRICT PERMITS

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-1-5

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

BIOSOLIDS AND AMENDMENTS RECEIVING/MIXING OPERATION, INCLUDING AMENDMENT STORAGE AREA, FEED HOPPER WITH WATER SPRAY MISTERS, CONVEYOR DISCHARGING TO AMENDMENT PILES IN MIXING BUILDING, BIOSOLIDS UNLOADING INTO MIXING BUILDING, WITH MIXING BUILDING AND COVERED FEEDSTOCK CONVEYOR VENTED TO MIXING BUILDING BIOFILTER.

## PERMIT UNIT REQUIREMENTS

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1. Air pollution equipment (blower fans, ducting, biofilter, etc) shall be properly maintained in good operating condition at all times, except for times of maintenance and/or repair allowed by conditions below. [District Rule 2201]
2. Each biofilter blower fan may be shut down for a total of 48 hours per 6-month time period for the purpose of maintenance and/or repair. [District Rule 2201]
3. Feedstock mixing shall be performed in the mixing building, and mixing building shall be vented to biofilter. [District Rule 2201]
4. Conveyors transferring feedstock from mixing building to feedstock pad shall be covered and ventilated to receiving building biofilter. [District Rule 2201]
5. Biofilter shall be equipped with operational humidifier and sprinkler systems, and shall be used as needed to maintain optimum biofilter media moisture content. [District Rule 2201]
6. Amendment feed hopper shall be equipped with operational mist type water spray, and used as needed to ensure visible emissions do not exceed 5% opacity for more than 3 minutes in any one hour. [District Rule 2201]
7. VOC destruction efficiency across the biofilter serving the mixing building shall not be less than 80%, or total VOC emission rate from mixing building shall not exceed 2 pounds in any one day. [District Rule 2201]
8. NH3 destruction efficiency across the biofilter serving the mixing building shall not be less than 80%, or total NH3 emission rate from mixing building shall not exceed 2 pounds in any one day. [District Rule 2201]
9. There shall be no visible emissions greater than 5% opacity for more than three minutes in any one hour, from receiving/mixing operation amendment truck unloading, feed hopper loading, outdoor conveyor transfer points, or feed stock stacking conveyor. [District Rule 2201]
10. Maximum quantity of biosolids introduced into the feedstock mixers shall not exceed 350,000 wet tons on a rolling 12-month basis. [District Rule 2201]
11. Maximum quantity of amendment introduced into the feedstock mixing operation shall not exceed 320,000 wet tons on a rolling 12-month basis. [District Rule 2201]
12. Maximum quantity of feedstock discharged from the mixing operation shall not exceed 6,466 wet tons per day. [District Rule 2201]
13. Emissions from amendment feed hopper shall not exceed 0.0001 lb-PM10/ton. [District Rule 2201]
14. Emissions from amendment conveyor transfer points shall not exceed 4.5E-5 lb-PM10/ton. [District Rule 2201]
15. VOC emissions from the biofilter serving the mixing building shall not exceed 7.4 lb/day. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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16. Combined VOC emissions from S-4212-1, '-2 and '-7 shall not exceed 160,398 lb/yr. [District Rule 2201]
17. NH<sub>3</sub> emissions from the biofilter shall not exceed 0.4 lb/day. [District Rule 2201]
18. Biofilter media shall be maintained such that the pH remains between 5.0 and 8.0, moisture content between 40 and 80% and temperature between 50 and 95 degrees F, as measured at a depth of at least 2 feet below the media surface. [District Rule 2201]
19. Biofilter discharge surface, for testing and monitoring purposes, shall be divided into sixteen uniformly sized areas (grids). When source testing the biofilter, a minimum of 8 representative grid points shall be used. [District Rule 1070]
20. Biofilter exhaust blower discharge pressure shall not exceed 5.0 psig. [District Rule 2201]
21. Biofilter exhaust blower discharge pressure shall be monitored weekly to ensure system pressure is within permitted operating range. [District Rule 1081]
22. Biofilter moisture, pH and temperature shall be monitored monthly by sampling one central grid location. Samples shall be taken at two depths beneath the surface. Samples shall be analyzed at in-house laboratory within 48 hours of collection. After collection of biofilter media samples, any sample holes shall be re-filled immediately with the excavated material. [District Rule 1081]
23. Biofilter media shall be "fluffed" or replaced as needed to maintain the exhaust blower discharge pressure within the normal operating range. [District Rule 2201]
24. Vegetative growth shall not exceed 10% of the total biofilter surface. [District Rule 2201]
25. Biofilter shall be checked visually at least weekly for compaction, channeling (cracks), vegetative growth or noticeable increase in detectable odors. [District Rule 2201]
26. Biofilter media temperature shall be monitored weekly by inserting a manual temperature probe into each biofilter grid location, waiting approximately 30 to 90 seconds for the temperature to stabilize, then recording the temperature. [District Rule 1081]
27. If any biofilter media temperature reading is out of range, then the biofilter moisture and pH shall be tested, and recorded, for the corresponding grid(s). [District Rule 1081]
28. If any biofilter monitoring parameter is out of range, the applicant shall perform the necessary maintenance to return the media parameter(s) to the permitted range within 1 week of detecting the problem. All grids which tested out of range shall be re-tested within one week. [District Rule 2201]
29. Demonstration of compliance with biofilter VOC daily emissions limit (DEL) and control efficiency shall be made within 60 days of replacement of spent media which requires more than 50% of the biofilter media to be replaced. If any ASP biofilters are replacing media concurrent with the replacement of the mixing building biofilter media, then the ASP biofilter source testing may be used as representative testing in demonstrating compliance with VOC control efficiency requirement for the mixing building biofilter. [District Rules 1070 and 2201]
30. District witnessed source testing of biofilter performed to measure VOC and NH<sub>3</sub> inlet concentrations, inlet flowrate, and VOC and NH<sub>3</sub> destruction efficiencies across the biofilter, shall be performed by an independent testing laboratory certified for SCAQMD methods 25.3, 207.1, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1. [District Rule 1070]
31. The following biofilter test methods shall be used: Biofilter temperature - EPA method 170.1, moisture content - TMECC 03.09 (Total solids and moisture at 70+/-5 degrees centigrade), media pH - TMECC 04.11-A (1:5 slurry pH), VOC leaks - EPA Method 21 (VOC leaks), and hydrocarbon analyzer for VOCs calibrated with certified zero and 10 ppmv methane standards. [District Rule 1081]
32. Operator may use an alternate test method to those listed above for which written approval of the APCO has been obtained. [District Rule 1081]
33. District shall be notified at least 30 days prior to any compliance source testing, and a source test plan shall be submitted for approval at least 15 days prior to testing. Official test results and field test data from compliance testing shall be submitted within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

34. The following operating parameters shall be documented during times of testing: biofilter exhaust blower discharge pressure and temperature, biofilter air flow, biofilter media temperature (all 16 grids), moisture content and pH (Only two samples of moisture and pH required, samples to be taken at one central location (from at least two feet deep)). Moisture and pH shall also be sampled, and recorded, for every grid in which the temperature is found to be out of the permitted range. [District Rule 1070]
35. VOC and NH<sub>3</sub> samples shall be analyzed by a lab certified by SCAQMD to perform identified SCAQMD test methods. [District Rule 1081]
36. Records shall be kept of wet tons per day of biosolids fed into the feedstock mixing operation, daily amendment mix ratio, monthly biofilter temperature, moisture and pH readings, weekly biofilter media temperature and exhaust blower discharge pressure readings, associated biofilter grid locations, and annual VOC emissions on a 12 month rolling average. Records shall be kept of visual inspections and actions taken to correct compaction (and/or high biofilter blower fan pressure(s)), channeling, excessive vegetative growth or a noticeable increase in odors, including date of inspection and date actions were taken to correct problem(s). Records shall be kept of dates and hours each biofilter fan is shutdown for maintenance and/or repair. Records shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rule 1070]

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-2-5

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

BIOSOLIDS CO-COMPOSTING OPERATION INCLUDING TWO NEGATIVELY AERATED STATIC PILE (ASP) ACTIVE COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 19,962 SQ FT EACH), AND TWO ASP CURING COMPOST AREAS, EACH VENTED TO IT'S OWN BIOFILTER (APPROXIMATELY 11,234 SQ FT EACH); INCLUDING BLOWER FANS, COOLING FANS, HUMIDIFIERS AND BIOFILTER SURFACE SPRINKLER SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. Active and curing phase composting shall be performed in negatively-aerated static piles (ASPs) with engineered, under pile, grid aeration system venting to a biofilter. [District Rules 2201 and 4565]
2. ASP biofilters shall be equipped with operational humidifier and sprinkler systems, and shall be used, as needed, to maintain optimum biofilter media moisture content. [District Rule 2201 and 4565]
3. Air pollution equipment (blower fans, ducting, biofilters, etc) shall be properly maintained in good operating condition at all times, except for times of maintenance and/or repair allowed by conditions below. [District Rules 2201 and 4565]
4. Each biofilter blower fan may be shut down for a total of 48 hours per 6-month time period for the purpose of maintenance and/or repair. [District Rule 2201]
5. All active phase ASPs shall be covered with finished compost or wood chips. [District Rule 2201]
6. VOC destruction efficiency across each biofilter serving the active phase compost ASPs shall not be less than 80%, or total VOC emission rate shall not exceed 2 pounds in any one day. [District Rules 2201 and 4565]
7. NH3 destruction efficiency across each biofilter serving the active phase compost ASPs shall not be less than 80%, or total NH3 emission rate shall not exceed 2 pounds in any one day. [District Rule 2201]
8. Maximum quantity of feedstock (mixed biosolids and amendments) introduced into active phase compost ASPs shall not exceed 6,466 tons/day nor 670,000 tons/year (based on a rolling 12 months). [District Rule 2201]
9. VOC emissions from this permit unit (includes all ASP surfaces and biofilters serving ASPs) shall not exceed 0.23826 lb/ton throughput. Throughput is defined as wet ton, as mixed, feedstock introduced into active phase compost ASPs. [District Rule 2201]
10. VOC emissions from the biofilters serving the active and curing phase composting shall not exceed 1,135.1 lb/day. [District Rule 2201]
11. Combined VOC emissions from S-4212-1, '-2 and '-7 shall not exceed 160,398 lb/yr. [District Rule 2201]
12. NH3 emissions from this permit unit (includes all ASP surfaces and biofilters serving ASPs) shall not exceed 0.2203 lb/ton throughput. Throughput is defined as wet ton, as mixed, feedstock introduced into active phase compost ASPs. [District Rule 2201]
13. NH3 emissions from the biofilters serving the active and curing phase composting shall not exceed 279.6 lb/day. [District Rule 2201]
14. Permittee shall implement at least two (2) Rule 4565 class one mitigation measures, in addition to one (1) class two mitigation measures for active composting and one (1) class two mitigation measure for curing composting. [District Rule 4565 5.3.3.2]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

15. Biofilter media shall be maintained such that the pH remains between 4.5 and 8.0, moisture content between 45 and 80% and temperature between 90 and 115 degree F, as measured at a depth of at least 2 feet below the media surface. [District Rules 2201 and 4565]
16. Aerated Static Piles shall have no measurable increase (<0.45 ppmv increase) over background levels of hydrocarbons within three feet of any surface of any aerated static pile. Testing shall be performed once per quarter in accordance with the requirements of Rule 4565 section 5.4 using a District approved analyzer. [District Rule 4565 5.4.1, 5.4.3 and 5.4.5]
17. Every ASP biofilter temperature, moisture and pH shall be monitored monthly by sampling at least one central grid location. Samples shall be taken at two depths beneath the surface. Samples shall be analyzed at in-house laboratory within 48 hours of collection. After collection of biofilter media samples, any sample holes shall be re-filled immediately with the excavated material. [District Rules 1081 and 4565]
18. Biofilter exhaust blower discharge pressure shall not exceed 5.0 psig. [District Rules 2201 and 4565]
19. Biofilter discharge surface, for testing and monitoring purposes, shall be divided into sixteen uniformly sized areas (grids). When source testing the biofilter, a minimum of 8 representative grid points shall be used. [District Rule 1070]
20. ASP Biofilter exhaust blower discharge pressures shall be monitored weekly to ensure system pressures are within permitted operating range. [District Rules 1081 and 4565]
21. Biofilter media shall be "fluffed" or replaced, as needed, to maintain the exhaust blower discharge pressures within the permitted operating range. [District Rule 2201]
22. Vegetative growth shall not exceed 10% of the total biofilter surface. [District Rules 2201 and 4565]
23. Biofilter shall be checked visually at least weekly for compaction, channeling (cracks), vegetative growth or noticeable increase in detectable odors. [District Rules 2201 and 4565]
24. Biofilter media temperature shall be monitored weekly by inserting a manual temperature probe into each biofilter grid location, waiting approximately 30 to 90 seconds for the temperature to stabilize, then recording the temperature. [District Rule 1081]
25. If any ASP biofilter media temperature reading is out of range, then the biofilter moisture and pH shall be tested, and recorded, for the corresponding grid(s). [District Rule 1081]
26. If any biofilter monitoring parameter is out of range, the applicant shall perform the necessary maintenance to return the media parameter(s) to the permitted range within 1 week of detecting the problem. All grids which tested out of range shall be re-tested within one week. If any grid is still out of range during the re-test, then source testing of the biofilter shall be performed within 60 days to show compliance with the emissions limit and VOC control efficiency of the biofilter. [District Rule 2201]
27. Demonstration of compliance with biofilter VOC daily emissions limit (DEL) and control efficiency shall be performed no less than once every two years and within 60 days of replacement of spent media or a maintenance (or repair) event which requires more than 50% of the biofilter media to be disturbed. [District Rules 1070, 2201 and 4565]
28. The following biofilter test methods shall be used: Biofilter temperature - EPA method 170.1, moisture content - TMECC 03.09 (Total solids and moisture at 70+/-5 degrees centigrade), media pH - TMECC 04.11-A (1:5 slurry pH), VOC leaks - EPA Method 21 (VOC leaks), and hydrocarbon analyzer for VOCs calibrated with certified zero and 10 ppmv methane standards. [District Rules 1081 and 4565]
29. District witnessed source testing to determine inlet and outlet VOC concentrations, flowrate, and destruction efficiency across every biofilter shall be performed not less than once every two years by an independent testing laboratory certified for SCAQMD test methods 25.3, 207.1, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1. [District Rules 1070 and 4565]
30. Operator may use an alternate test method to those listed above for which written approval of the APCO has been obtained. [District Rules 1081 and 4565 6.2.6]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

31. District shall be notified at least 30 days prior to any compliance source testing, and a source test plan shall be submitted for approval at least 15 days prior to testing. Official test results and field test data from compliance testing shall be submitted within 60 days thereafter. [District Rule 1081]
32. The following operating parameters shall be documented during times of testing: biofilter exhaust blower discharge pressure and temperature, biofilter air flow, biofilter media temperature (all 16 grids), moisture content and pH (Only two samples of moisture and pH required, samples to be taken at one central location (from at least two feet deep)). Moisture and pH shall also be sampled, and recorded, for every grid in which the temperature is found to be out of the permitted range. [District Rule 1070]
33. VOC samples shall be analyzed by a lab certified by SCAQMD to perform identified SCAQMD test methods. [District Rule 1081]
34. Records shall be kept that demonstrate that the facility meets the Rule 4565 class one mitigation measures selected each day that a mitigation measure is performed. [District Rule 4565 6.1.4.2]
35. Operator shall maintain an inspection logbook which contains the quarterly VOC hydrocarbon analyzer readings in ppmv for each inspection location (on surface of the ASP), along with the date of the inspection. [District Rule 4565 6.1.5]
36. Records shall be kept of wet tons per day of biosolids fed into the feedstock mixing operation, daily amendment mix ratio, monthly biofilter temperature, moisture and pH readings, weekly biofilter media temperature and exhaust blower discharge pressure readings, associated biofilter grid locations, and annual VOC emissions on a 12 month rolling average. Records shall be kept of visual inspections and actions taken to correct compaction (and/or high biofilter blower fan pressure(s)), channeling, excessive vegetative growth or a noticeable increase in odors, including date of inspection and date actions were taken to correct problem(s). Records shall be kept of dates and hours each biofilter fan is shutdown for maintenance and/or repair. [District Rules 1070 and 4565 6.1]
37. All records shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rules 1070 and 4565 6.1.8]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-3-1

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

FINISHED COMPOSTING PRODUCT SCREENING AND STACKING OPERATION, INCLUDING FEED HOPPERS, CONVEYORS, TWO TROMMEL SCREENS, DISCHARGE CONVEYORS AND STACKOUT CONVEYORS EQUIPPED WITH OPERATIONAL WATER SPRAY BAR(S)

## PERMIT UNIT REQUIREMENTS

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1. There shall be no visible emissions greater than 5% opacity for more than three minutes in any one hour from compost conveyors, conveyor transfer points, screens or conveyor transfer to stock piles. [District Rule 2201]
2. Water spray bars shall be operated, as needed, to ensure no visible emissions greater than 5% opacity for more than three minutes in any one hour from the stacking conveyor discharging to stock pile(s). [District Rule 2201]
3. VOC and NH3 emissions shall not exceed 0 lb/day from the screening, stacking and loadout operations authorized by this Authority to Construct. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-4-0

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

415 BHP DETROIT MODEL 6063MK35 DIESEL-FIRED EMERGENCY IC ENGINE POWERING ELECTRICAL GENERATOR.

## PERMIT UNIT REQUIREMENTS

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1. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
3. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [District NSR Rule and District Rule 4702]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. The sulfur content of the diesel fuel used shall not exceed 0.05% by weight. [District Rule 2201]
7. Emissions from this engine shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 5.70 grams/hp-hr, CO: 0.40 grams/hp-hr or VOC: 0.14 grams/hp-hr. [District Rule 2201]
8. The PM<sub>10</sub> emissions rate shall not exceed 0.08 grams/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201]
9. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), and the sulfur content of the diesel fuel used. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4212-5-2

**EXPIRATION DATE:** 02/29/2012

**EQUIPMENT DESCRIPTION:**

ELECTRICALLY-DRIVEN TRANSPORTABLE TROMMEL MILL SCREEN INCLUDING DISCHARGE STACK CONVEYOR SERVED BY WATER SPRAY BARS

## PERMIT UNIT REQUIREMENTS

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1. There shall be no visible emissions greater than 5% opacity for more than three minutes in any one hour from compost conveyors, conveyor transfer points, screens or conveyor transfer to stock piles. [District Rule 2201]
2. Water spray bars shall be operated, as needed, to ensure no visible emissions greater than 5% opacity for more than three minutes in any one hour from the stacking conveyor discharging to stock pile(s). [District Rule 2201]
3. VOC and NH3 emissions shall not exceed 0 lb/day from the screening, stacking and loadout operations authorized by this Authority to Construct. [District Rule 2201]
4. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

These terms and conditions are part of the Facility-wide Permit to Operate.

# Attachment D

## TEMPLATE QUALIFICATION FORM

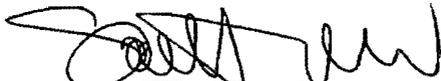
**Title V General Permit Template Qualification Form**  
**for**  
**Facility-wide Umbrella General Permit Template**

District facility ID # \_\_\_\_\_ S-4212 \_\_\_\_\_

To use this template, remove this sheet and attach to application. The conditions outlined in this template will be placed on your Title V permit.

Any facility may use this facility-wide template as part of its Title V application.

Based on information and belief formed after reasonable inquiry: 1) the information on this form is true and correct and 2) the facility certifies compliance with this template's permit conditions.

  
\_\_\_\_\_  
Signature of Responsible Official

8/25/09  
\_\_\_\_\_  
Date

Sam Monaco  
\_\_\_\_\_  
Name of Responsible Official (Please Print)

# Attachment E

## MONITORING PARAMETERS

#### **IV. Process Description**

The terms used in this application review are based on the definitions provided in section 3 of District Rule 4565.

The operation is a co-composting operation (biosolids mixed with bulking agents) which utilizes negatively aerated static piles vented to atmosphere through biofilters.

##### Co-composting:

Composting is a component of the solid waste industry, which provides conservation through source reduction, recycling, and reuse. The composting process releases emissions of carbon dioxide, water vapor, methane, VOCs, other organic gases, and inorganic gases such as ammonia.

The co-composting operation receives biosolids from municipal wastewater treatment plants. The nitrogen rich solid portion of the wastewater treatment plants, known as biosolids, is used to create compost. Controlled aerobic degradation or decomposition of nitrogen rich organic waste with carbon rich materials (amendments) produces a commercially marketable end product (compost). The SKIC Facility utilizes negatively aerated static piles (ASPs) with engineered under pile aeration grids to draw air through the composting materials and to control composting conditions.

Air circulation provides the aerobic conditions required for the compost process and helps minimize odors. The process is under negative pressure, where evolved gases and air are drawn through pipes and discharged to biofilters for odor, VOC and NH<sub>3</sub> emissions control. Temperature control is achieved by daily measurements or a feedback control system. The ASP composting system under negative pressure with biofilters increases the oxygen in compost piles, reduces odors, and reduces vector attraction, reduces fugitive dust emissions, and requires shorter process cycle (composting) times (as compared to static windrow composting).

Co-composting is a three-stage process that begins as soon as the materials are combined. The initial stage is referred to as active composting followed by curing, then finishing (processing and/or storage of finished compost). During the composting process microorganisms such as bacteria, fungi, and actinomycetes consume oxygen while metabolizing organic material such as green/wood waste, food waste, livestock manure, biosolids and other putrescible materials. The microbial activity results in the transformation of the initial mixture into a stable, pathogen-free composted material.

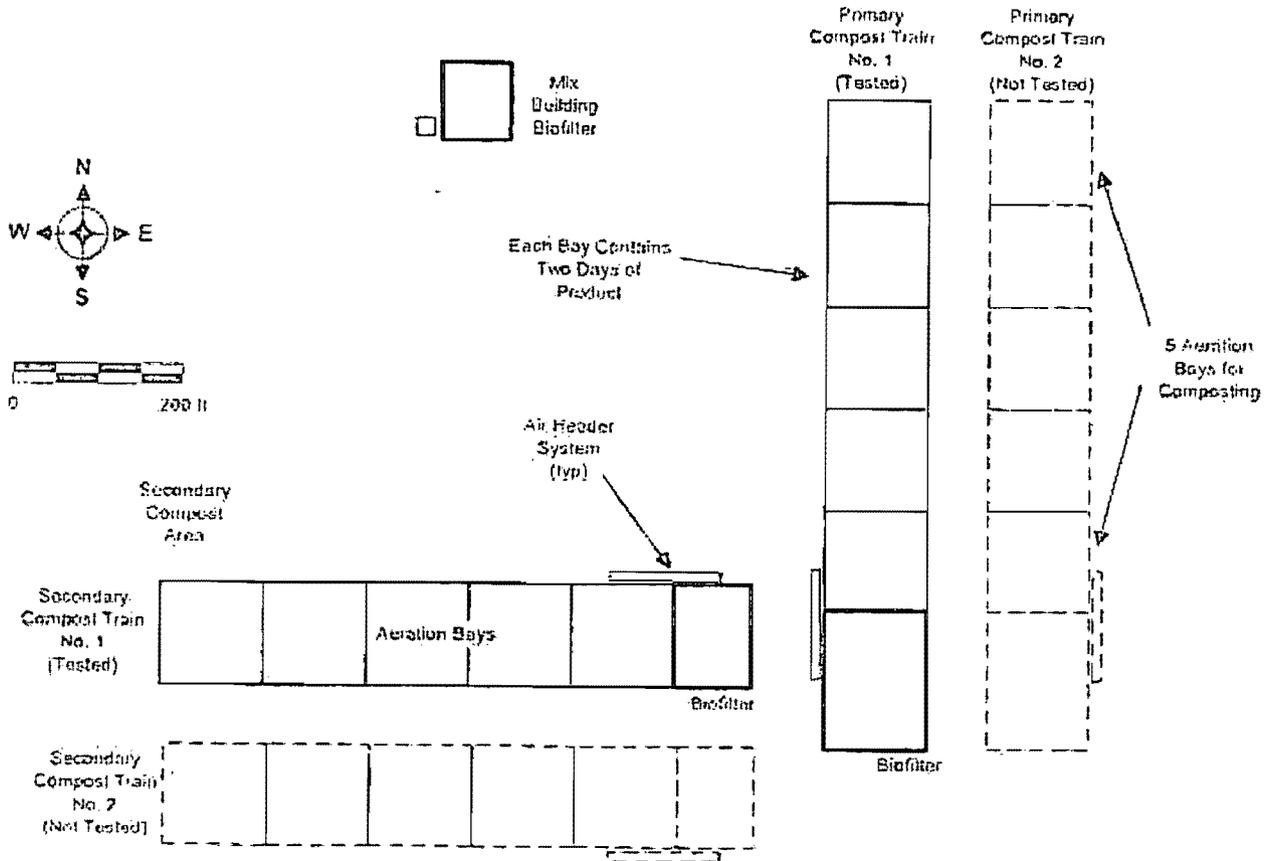
##### Active ASP composting:

Active phase composting begins once biosolids and bulking agents are mixed and placed into active aerated static piles (ASP) and continues until pathogen and vector attraction reduction time/temperature requirements of US EPA 503 have been met (typically 18 to 22 days). High temperatures (110-150 degrees F), high level of oxygen demand and high evaporation rates characterize this stage.

The active composting ASP area consists of asphalt concrete pad perforated with holes every 3 – 5 feet and underground piping to suction blowers allow air to be drawn through the pile. The primary ASP process consists of 10 ASP cells within two ASP zones.

Location of the 4 ASP biofilters (BF1-BF4):

There are four biofilters serving ASPs. Two serve the primary active phase compost areas (BF1 and BF2) and two serve the secondary compost areas (BF3 and BF4). A layout drawing showing the locations is shown below.



The active phase compost ASP cells are located in two zones (5 ASP cells per zone) and each cell is approximately 15 feet high with an 18,100 ft<sup>2</sup> footprint. The piles have an approximately 6-12 inch underlying base of coarse amendment (air plenum layer) and a 6-12 inch insulating layer of finished composted material on top.

Once the piles have been formed, they are not moved until the active composting process is complete (i.e. pathogen and vector attraction reduction time/temperature is reached). Air drawn negatively through the pile uses low pressure-high volume blowers and a piping system. Temperature control is achieved by daily measurements or a feedback control system that varies the blower operation. In the picture below, you can see the ASP blower (right) discharging to the humidifier (widest section of piping in center of photo, furthest back) which then discharges collected ASP vapors to the biofilter (front left) under piping (notice the wood chips in the biofilter media to the left).



Sprinklers on top of the biofilter, in combination with the in-duct humidifier, are used to ensure the biofilter does not dry out (microbes which digest the VOCs must be kept moist). The warm moist vapors flow through the biofilter media at no more than 4 cfm per square foot. The picture below shows one of the biofilters serving ASPs once it had reached normal operating mode. It is normal for the biofilter to appear “steamy” on the discharge surface as seen below, as the moisture content of the vapors is very high at this point. The visibility of this steam varies given the time of year and outdoor temperature.



Temperature and aeration rates are monitored to minimize emissions and maximize plant efficiency. After approximately 18-22 days, the composted material is transported via front-end loader and off road dump trucks to the curing ASP area.

#### Curing (Mesophilic phase) ASP composting:

The curing stage of the process is the composting phase that begins at the completion of active composting and lasts 20-40 additional days to allow further maturation prior to

screening and load out. The applicant moves the material from the active phase zone to the curing phase ASP area using front loaders. This movement of the material is not required for composting, but is done to result in the "texture" required by their end user/customer. The curing phase of composting is where the mesophilic microorganism population is highest, while the need for oxygen and the evaporation rate both decrease.

The curing ASP phase compost ASPs are located in two zones (5 ASP cells per zone) and each cells covers approximately 17,592 ft<sup>2</sup>. The piles consist of compost product from the active ASP piles plus any commingled plenum layer (coarse amendment) and insulating cover. The curing ASPs are on pads the same as primary ASPs. The curing composting phase is approximately 20 to 40 days. The curing system is also sized to have an approximately 6-12 inch underlying coarse amendment layer. As with the active ASPs, the height of the curing piles will vary depending on the residence time and throughputs. The materials throughputs (previously approved) are listed below for reference.

TABLE 1			
Summary of maximum wet mass and volumes for South Kern Industrial Center, LLC			
	Mass (tons)	Mass (tons)	Volume (CY)
<b>Inputs</b>	<b>per year</b>	<b>Per day</b>	<b>Per year</b>
Biosolids (maximum)	350,000	3,386	439,140
Amendment (Includes recycle and bulking agents)	320,000	3,080	1,278,040
<b>Subtotal</b> (Inputs)	<b>670,000</b>	<b>6,466</b>	<b>1,717,181</b>
<i>Output product</i>	<i>273,740</i>	<i>2,638</i>	<i>456,693</i>

Below is a photo of BF1, in which you can see the primary ASP piles in the background.



The biofilters are composed of woodchips mixed with some finished compost, which creates a biological filtering system. Well designed and maintained biofilters are very effective at removing odors (sulfide compound removal in excess of 99.99% control), ammonia, and VOC (each with greater than 80% control). SKIC is proposing to modify the testing and monitoring conditions on the five biofilters at the facility. One biofilter serves the mixing building and the other 4 biofilters serve the primary (active phase) and secondary (curing phase) aerated static piles (ASPs).

#### History of biofilter performance at the facility:

Significant design changes have been made to the biofilters over the last year to address operational problems. The underpiping network in the biofilters was experiencing plugging due to improper water drainage and subsequent compaction. The plugging of the holes in the piping created poor underbed distribution of vapors in the biofilters, excessive pressures at the fans, and catastrophic failure of the biofilters. Late in 2009 SKIC installed a high tech leachate collection liner beneath each biofilter, repaired the underbed piping, and then placed a layer of river rock between, and covering, the piping - to ensure even airflow and minimize compaction of biofilter media into the holes in the piping. The biofilters were then source tested to show compliance with permit emissions limits.

#### Proposed biofilter maintenance provisions to be added to the permits

In this current application, the applicant is also proposing to add some maintenance provisions on the permits. When the temperatures on the biofilters begin to go out of range, or when the steam on the surface appears to be less than expected near the main lateral (at the head of the biofilter) the fan blower pressure typically shows an increase in pressure. To solve this, the applicant must open up the end of the leachate collection line and vacuum out any debris (along with any excess water). They say this usually fixes the blockage problem and returns the fan to a normal operating range. When this does not fix the over pressure situation, they propose to open the end of the lateral where the air comes in (the blower fan is turned off to do this procedure) and "jet out" the lateral with high pressure water. This removes any blockage and debris from the lateral (and then the water is vacuumed out of the leachate collection line). Conditions to allow this ongoing maintenance to occur (for up to 48 hours per year) are being requested as part of this project approval.

#### Analysis of biofilter monitoring parameters:

Because of the magnitude of emissions being controlled, it is important that the biofilters serving the ASPs operate efficiently. The purpose of monitoring surrogate parameters (media temperature, fan pressure, moisture, pH, etc) is to determine ongoing compliance with emissions control devices. The uncontrolled emissions from a 670,000 tpy co-composting operation (SKIC permit limit) using open windrow composting = 1,192,600 lb-VOC/year (596.3 tpy VOC). Malfunctioning biofilters (serving ASPs) have the potential to result in significant emissions to the atmosphere.

Given the biofilter operation, maintenance and monitoring experience gained over the last couple of years – along with an analysis of recent monitoring records/data, the District has come to the following conclusions:

- 1) A visual inspection of the ASP biofilters is very important in verifying proper operation of the biofilter. When operating correctly, there is a predictable steam rising off the filter, and a whitish colored substance (fungus) growing just under the surface of the wood chips (revealed if you kick some of the top layer over)



*Normal operation results in a steamy surface on the biofilter (above photo from SKIC)*

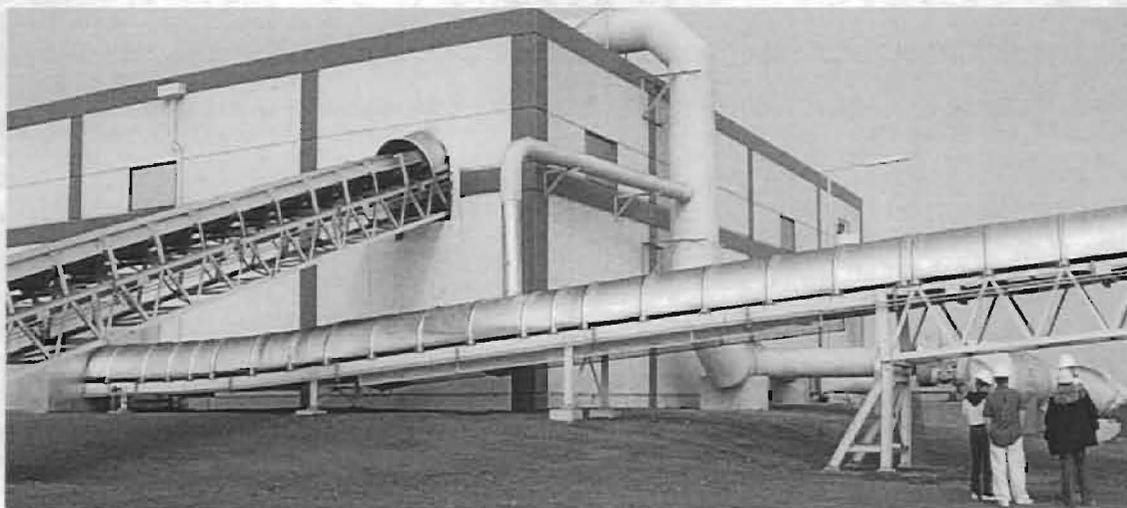
- 2) Temperature is perhaps the 2<sup>nd</sup> most important parameter to monitor for ASP biofilters. For the temperature to be in the right range – the moisture, pH and airflow must be correct. If the temperature is in the correct range, it confirms the other parameters are within range. If the temperature is out of range, then it indicates a problem in the biofilter. At that point, the other parameters may need to be tested, documented and analyzed in order to troubleshoot the problem.
- 3) Excessive pressure at the blower fan is often an indicator of blockage in the exhaust stream – which is usually caused by compaction of the biofilter media or plugging of the air piping under the biofilter (which at this facility is generally caused by poor water drainage in the bottom of the biofilter) or settling (eventually the media needs fluffed or replaced on a periodic basis).

The specific modifications to the biofilter operating parameter ranges are discussed at the end of the following sections describing the operations permitted on each permit. The biofilter source testing modifications are discussed at the end of this section of the application review.

**Biosolids/bulking agents receiving and mixing operation (S-4212-1)**

Operation includes a biosolids receiving and mixing building at the facility. Biosolids are delivered by truck into a bunker area through the receiving and mixing building roll up door.

Amendment is conveyed into the building via an outdoor hopper and conveyor. The amendment feed hopper (equipped with water spray bars) is loaded using a front loader. The amendment is discharged from the conveyor, once inside the building, into one of four piles. Both the biosolids and amendment materials are then loaded into the pugmill mixers using a front loader. The mixing operation is located inside the receiving and mixing building and the mixer discharge directs mixed feedstock to a covered conveyor that transports the mixed feedstock to a concrete feedstock pad. The building is vented via the building odor control system to a biofilter (east side). Incoming biosolids are unloaded into the building through one of the two doors shown below (west side). The building is under negative pressure and the doors are closed when trucks are not unloading into the building.



The building is vented to a biofilter which controls the odors and any VOC and NH3 emissions. The conveyor to the left (above) directs amendments into the building. The covered conveyor

South Kern Industrial Center LLC.  
S-4212, S-1102363

to the right moves the mixed feedstock from the building to the feedstock stacking drop point, discharging it onto a concrete pad.

There are no PM10 emissions from the feedstock stacking conveyor discharge due to the high moisture content. The material is then loaded into off road dump trucks using front loaders and transferred to the active ASP area.

Typical moisture content of the materials are shown below:

Moisture content

Biosolids	75-85%
Bulking agents	20-40%
Primary compost (initial)	50-65%
Secondary compost ("	40-55%
Pre-screening compost	30-45%
Finished product	30-45%

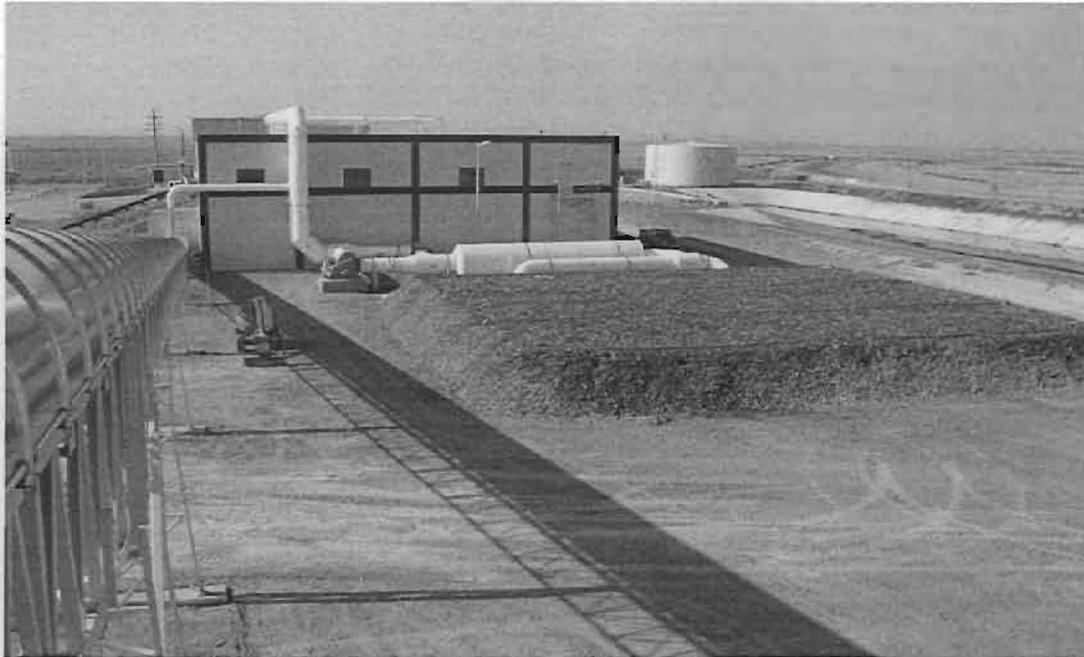


Mixed product coming from the mixing building – prior to being transported to the active phase ASP area.

Mixing building biofilter:

The mixing building biofilter primarily serves as odor control to the mixing building. The air temperature of the air piped to this biofilter is very cool in the winter, whereas collected air from the ASPs (by comparison) tends to be very hot all year long. Also, the VOC content of the mixing building is very low in comparison to the VOC content of the air from the ASPs to their associated biofilters. This equates to a much lower "normal" temperature operating range for the mixing building biofilter.

The permitted temperature range for the mixing building biofilter is being lowered to be consistent with the temperatures documented during testing and operation of the biofilter (See chart #1).



**Biofilter serving the mixing building at SKIC**  
(Construction phase photo)

Air from the mixing building is piped through a humidifier chamber (see above) prior to being blown through the piping underneath the biofilter. Additionally, sprinkler pipes are used on the top to keep the biofilter from drying out in the hotter months.

Proposed modifications to operating conditions listed on mixing building biofilter.

The applicant is proposing to modify the biofilter testing and monitoring conditions. The proposed ranges, shown in Table 2, were derived by analyzing on-site monitoring data. Please note, all the biofilters failed catastrophically late in 2009 due to design flaws, were subsequently fixed, rebuilt and began operating in a "normal" mode of operation in December 2009. The data after November 2009 represents "normal" operation for the biofilters at SKIC. Data prior to that date is indicative of data from malfunctioning biofilters.

SKIC is proposing a pH of 5.0-8.0, moisture content of 40-80%, temperature of 50-95 degrees F for the mixing building biofilter (all at least 2 feet below the surface) and a fan blower pressure not to exceed 2.0 psig - based on actual site specific monitoring data for the mixing building biofilter. Charts on the following pages were constructed using actual data from SKIC for this specific biofilter. Table #2 below compares biofilter parameters identified in Rule 4565.5.5<sup>6</sup>, the current PTO and the proposed ATC.

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<sup>6</sup> Rule 4565 section 5.5.3 states that "In lieu of complying with the requirements of Section 5.5.1 (biofilter requirements), an operator may be held to a different range of values or monitor alternate parameter(s) to the satisfaction of the APCO and EPA..."

Please note, this mixing building biofilter and its parameters are NOT typical of biofilters serving ASPs (ASP biofilters are discussed later in this section of the application review). The normal operating temperature range of the mixing building biofilter is significantly different than the normal operating temperature range of the ASP biofilters (see footnote 7 at bottom of this page).

<p align="center"><b>Table 2</b> <b>Mixing Building odor control biofilter (BF5)<sup>7</sup></b> (Permit S-4212-1)</p>				
	Rule 4565 <sup>8</sup>	Current PTO <sup>9</sup>	Actual	Proposed
Temperature	70-110 deg F	Ambient-115 deg F	58-68 deg F	50-95 deg F
Moisture	40-70%	40-80%	52-68%	40-80%
pH	6.5-8.0	4.5-8.5	5.7-7.8	5.0-8.0
Pressure	N/A	None listed	0.5-2.0	0-5.0 psig
Visual inspection	The biofilter media is free of observable rodent burrows, cracks, and channeling. Weed coverage shall be < 10% of exposed surface of the biofilter.			Visual inspection requirements consistent with Rule 4565 will be added to the ATC.

A normal biofilter temperature operating range will be identified on the permit and for grids which are out of range, immediate testing of the other parameters will be required. This will assist in troubleshooting the problem and be used to determine if source testing may be required to demonstrate the biofilter still meets the 80% CE requirement.

Pressure operating range

The District is adding a condition to list the permitted pressure range for the biofilters. A pressure limit of 5.0 psig will be added to the permit for the mixing building biofilter . Any pressure over that amount would be indicative of a compacted biofilter media or undue blockage in the blower discharge piping network (which will indicate action is required on the part of the operator). The applicant has stated they typically take action before the pressure gets to 3 psig, to address pressure buildup (typically from blockage of the biofilter vapor piping air holes due to blockage in the leachate collection system).

<sup>7</sup> The mixing building biofilter parameters are NOT typical of ASP biofilter parameters. The normal operating temperature of this biofilter is significantly different than the operating range of an ASP biofilter. This is due to the low temperature of the air being pulled from the mixing building (as compared to the hot moist VOC laden vapor stream coming off the ASPs and going to their respective biofilters) and a low VOC content in the air being sent to the biofilter.

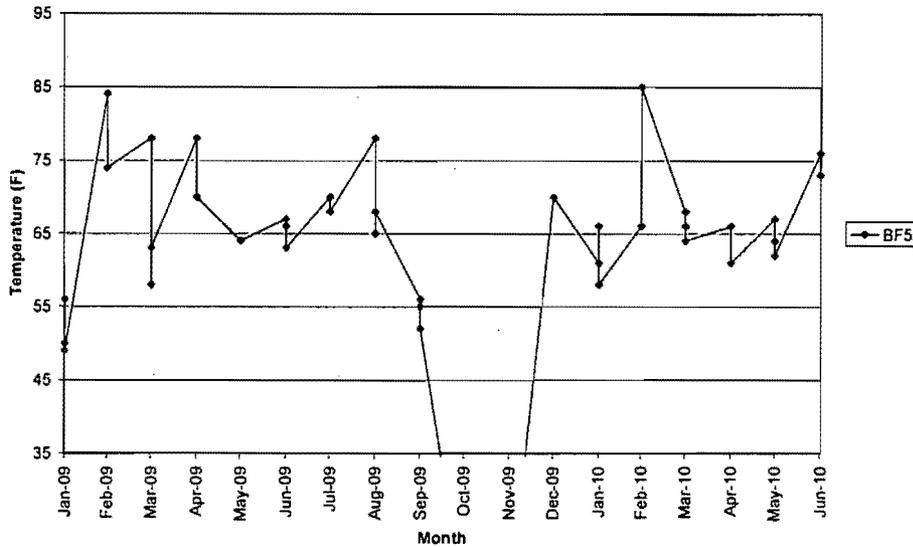
<sup>8</sup> Rule 4565 allows for the ranges listed in the chart OR In lieu of complying with those requirements, an operator may be held to a different range of values or monitor alternative parameter(s) if the operator demonstrates, to the satisfaction of the APCO and EPA, that the range of values or alternate parameter(s) is as indicative of system performance as the applicable requirements Section 5.5.1. The alternate range of the parameters listed in 5.5.1 or alternate monitoring parameter can be demonstrated by a source test. Rule 4565.

<sup>9</sup> Note: The ATCs for this facility were issued prior to the adoption of the rule, which is why there is a difference between permitted and Rule required parameters for the pre-project permit.

Mixing building biofilter

**Chart 1**

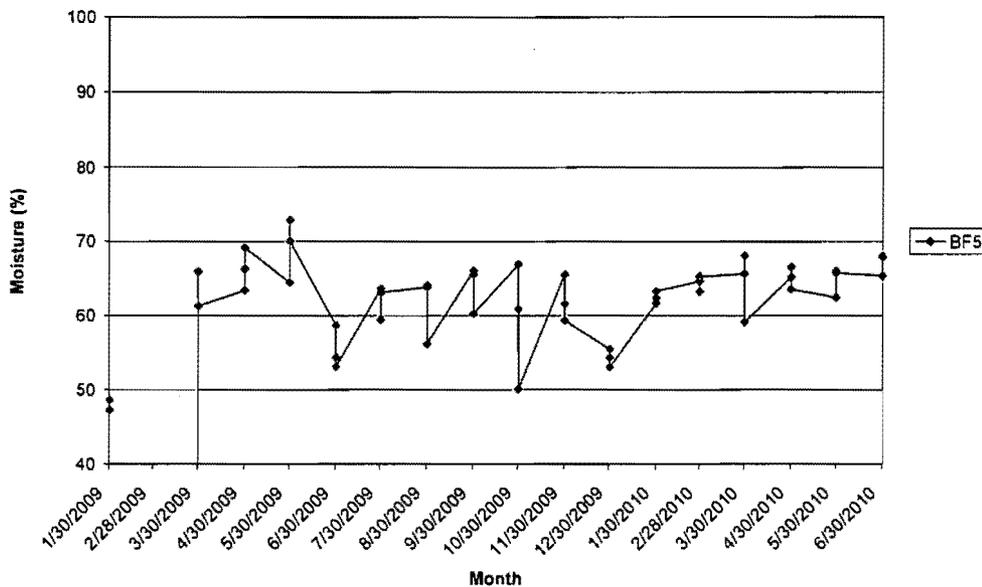
Temperature vs. Month



The above includes upper and lower readings on test dates. Allowing for a reasonable margin of error, the mixing building biofilter normal operating range appears to be 50-95 deg F.

**Chart 2**

Moisture vs. Month

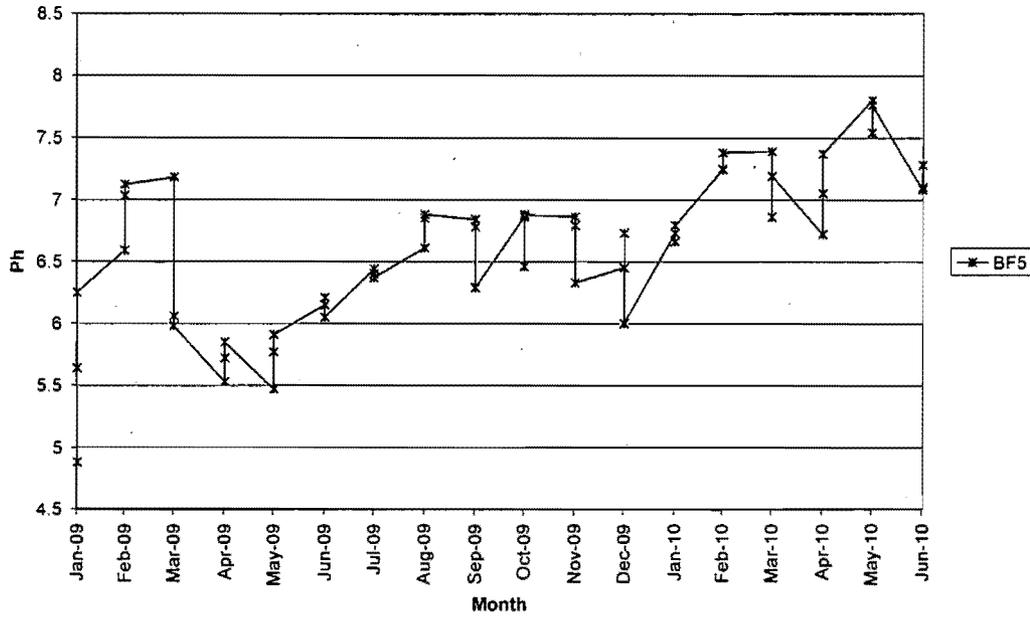


The moisture content range of 40-80% will not be changed. As long as the temperature of the biofilter media remains within range, the moisture parameter does not need to be overly restrictive for this biofilter which operates primarily as an odor control device (VOC emissions not in the same magnitude as the ASP biofilters).

Mixing building biofilter

**Chart 3**

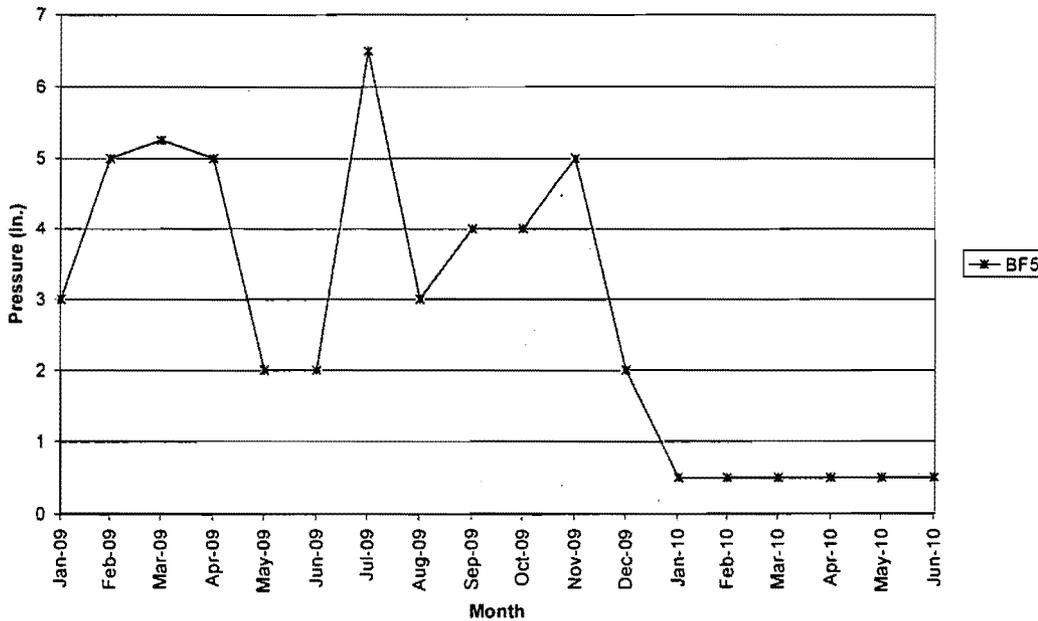
**Ph vs. Month**



The mixing building biofilter operating range will be modified from the current range (4.5-8.5) to a more representative pH range of 5.0 to 8.0. This includes a reasonable margin of error.

**Chart 4**

**Pressure vs. Month**



The mixing building biofilter fan pressure operating range will be limited to  $\leq 5.0$  psig. Any pressure greater than 5.0 psig would be indicative of the need for maintenance and/or repair.

**Proposed modifications to ASP biofilter permitted ranges of operation and associated monitoring requirements (S-4212-2)**

The applicant is proposing to modify the biofilter testing and monitoring conditions. The proposed ranges, shown in Table 3, were derived by analyzing on-site monitoring data. Please note, all the biofilters failed catastrophically late in 2009 due to design flaws, were subsequently fixed, rebuilt and began operating in a "normal" mode of operation in December 2009. The data after November 2009 was used to determine "normal" operation of the biofilters. Data prior to that date is indicative of data from malfunctioning biofilters.

The permit will be modified to require a pH operating range of 4.5-8.0, moisture content of 45-80%, temperature of 90-115 degrees F, and blower fan pressure range of  $\leq 5.0$  psig - for all the ASP biofilters (samples taken at least 2 feet below the surface) based on actual site specific monitoring and testing data. Charts on the following pages were constructed using actual data from SKIC biofilters serving ASPs. Table #3 below compares parameters identified in Rule 4565.5.5<sup>10</sup>, current PTO and the proposed ATC.

<p align="center"><b>Table 3</b> <b>ASP biofilters (BF1-BF4)</b> <b>Surrogate parameter ranges</b> (Permit S-4212-2)</p>				
	Rule 4565 <sup>11</sup>	Current PTO <sup>12</sup>	Actual	Proposed
Temperature	70-110 deg F	Ambient -115 deg F	98-112 deg F	90-115 deg F
Moisture	40-70%	40-80%	54-77%	45-80%
pH	6.5-8.0	4.5-8.5	5.5 – 7.0 ( <i>during normal operation</i> )	4.5-8.0
Pressure	N/A	None listed	0.25-3.5	< 5.0 psig
Visual inspection	The biofilter media is free of observable rodent burrows, cracks, and channeling. Weed coverage shall be less than 10% of the exposed surface of the biofilter.			Visual inspection requirements consistent with Rule 4565 will be added to the ATC.

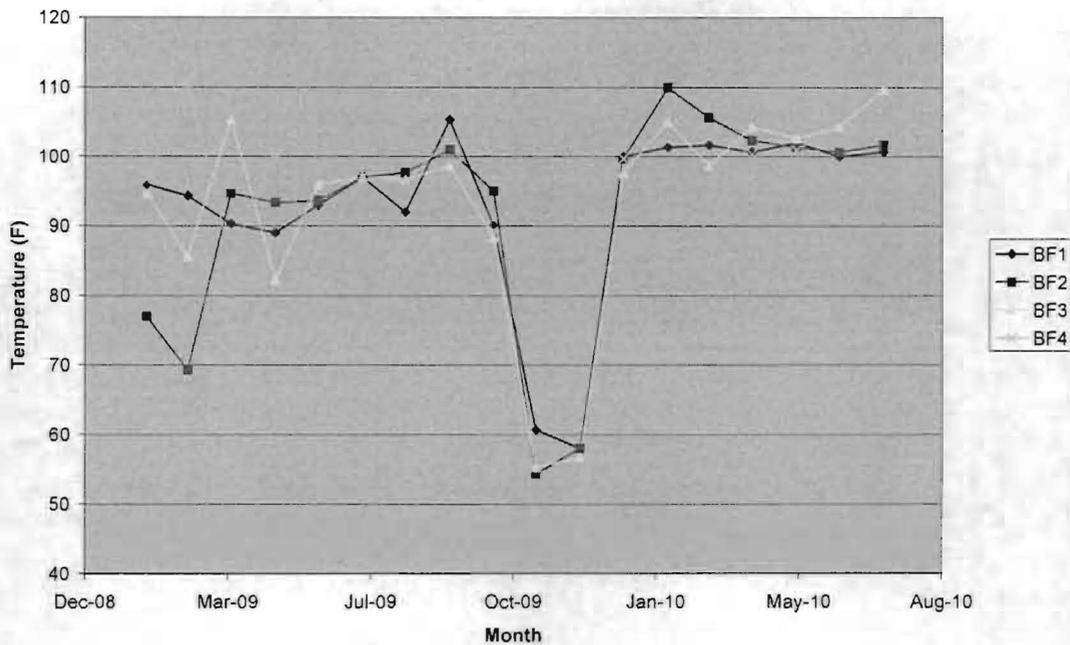
<sup>10</sup> Rule 4565 section 5.5.3 states that "In lieu of complying with the requirements of Section 5.5.1 (biofilter requirements), an operator may be held to a different range of values or monitor alternate parameter(s) to the satisfaction of the APCO and EPA..."

<sup>11</sup> Rule 4565 allows for the ranges listed in the chart OR In lieu of complying with those requirements, an operator may be held to a different range of values or monitor alternative parameter(s) if the operator demonstrates, to the satisfaction of the APCO and EPA, that the range of values or alternate parameter(s) is as indicative of system performance as the applicable requirements Section 5.5.1. The alternate range of the parameters listed in 5.5.1 or alternate monitoring parameter can be demonstrated by a source test. Rule 4565.

<sup>12</sup> Note: The ATCs for this facility were issued prior to the adoption of the rule, which is why there is a difference in parameters for the pre-project permit.

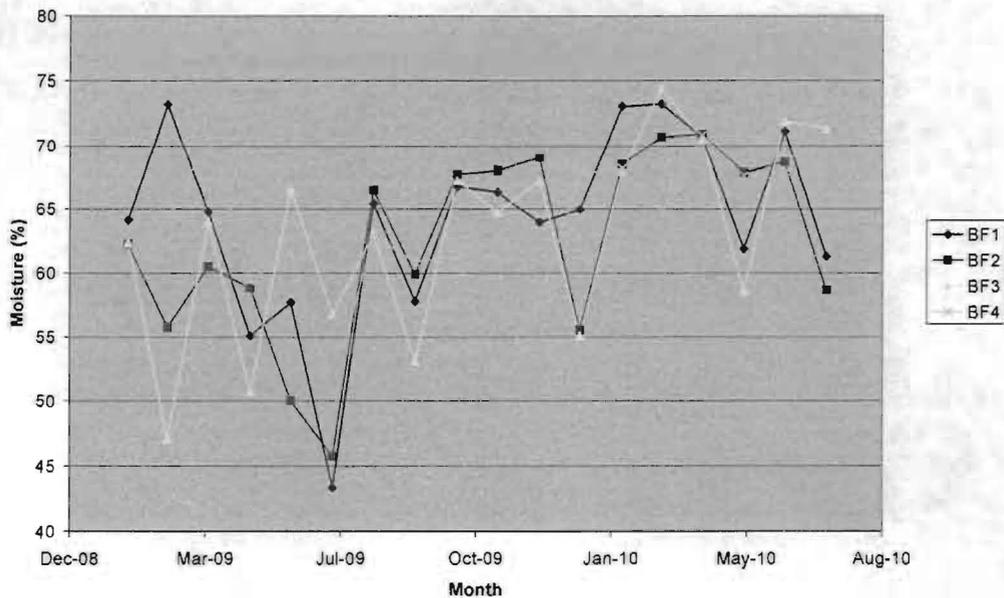
ASP biofilters

**Chart 5**  
**Temperature vs. Month**



Normal temperature operating range for the ASP biofilters serving co-composting (allowing for a margin of error) is 90-115 degrees F.

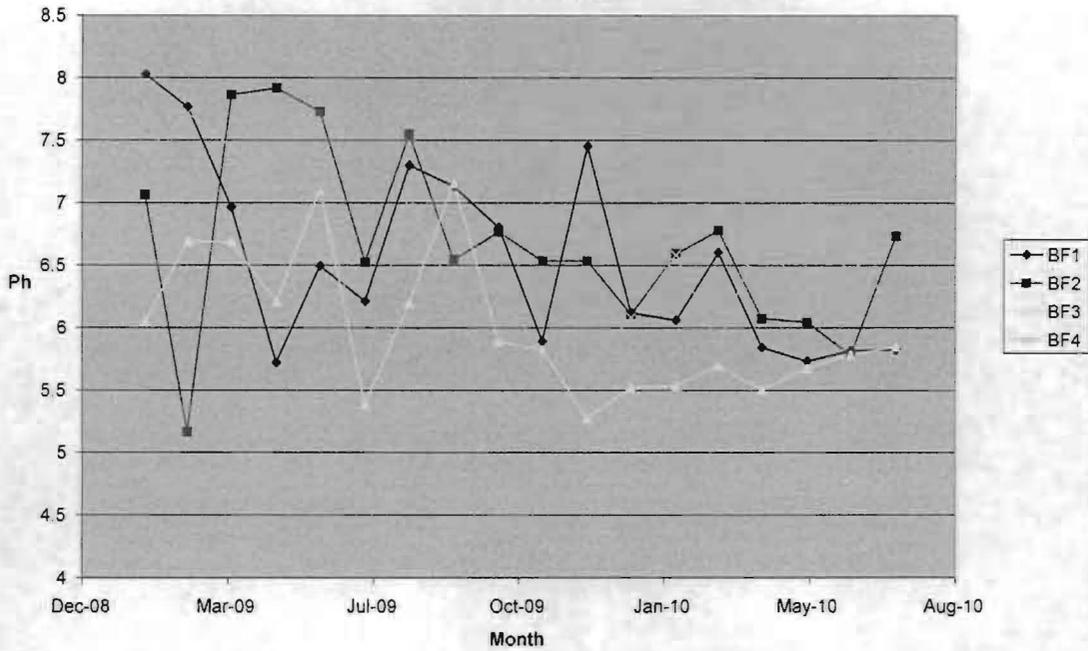
**Chart 6**  
**Moisture vs. Month**



Normal moisture range for the ASP biofilters (allowing for a reasonable margin of error) is 45-80%. Because temperature serves as the primary surrogate parameter for the biofilter, moisture is less critical in determining proper biofilter operation.

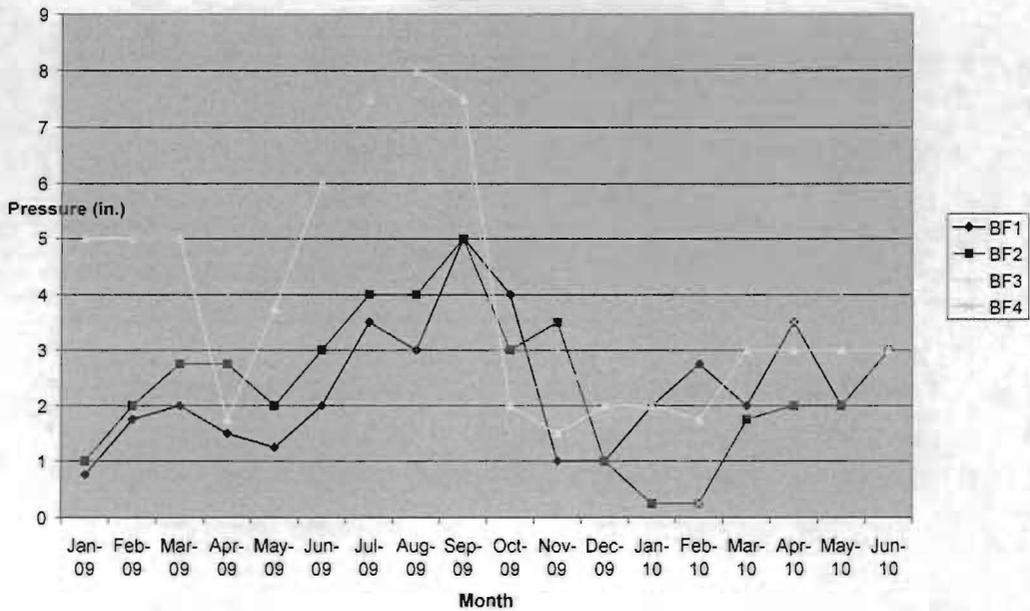
**ASP biofilters**

**Chart 7  
Ph vs. Month**



pH operating range for ASP biofilters will be changed from 4.5-8.5 to 4.5-8.0 (allows for a reasonable margin of error). As stated before, temperature is the primary surrogate parameter for determining proper biofilter operation; therefore the pH range need not be overly restrictive.

**Chart 8  
Pressure vs. Month**



Blower fan pressure operating range for biofilters serving co-composting ASPs (allowing for a reasonable margin of error), established above, is  $\leq 5.0$  psig.

A normal ASP biofilter temperature operating range will be identified on the permit, for grids which test out of range - immediate testing of the other parameters will then be required. This will assist in troubleshooting the problem and be used to determine if source testing may be required to demonstrate the biofilter still meets the 80% CE requirement.

Pressure operating range:

The District is adding a condition to list the permitted pressure range for the ASP biofilters. A pressure limit of 5.0 psig will be added to the permit for the ASP biofilters. Any pressure over that amount would be considered indicative of a compacted biofilter media or undue blockage in the blower discharge piping network (which will indicate action is required on the part of the operator to resolve the underlying problem(s)).

Correcting over-pressure situations:

The applicant has tools at their disposal to address blower fan pressure build up. They generally pull the cap on the leachate drainage line and suck out the line with a vacuum truck to remove obstructions from the drainage system. If this does not resolve the problem, they turn off the blower (allowed in new maintenance provisions being added to the permit) and "jet out" the line with high pressure water. That water is then sucked out of the leachate collection line. This typically solves the increasing pressure problem (plugging of the air holes in the lateral piping due to flooding and/or plugging of the air holes and/or blocked drainage line). High pressure readings will be used to alert the permit holder to perform needed maintenance before significant degradation of the biofilter performance.

**Modifications to biofilter source testing requirements:**

Biofilter testing requirements are being modified as shown in the table below.

Table #4 below compares testing requirements identified in Rule 4565.5.5, the current PTOs and the proposed ATCs.

<b>Table 4 Biofilter source test requirements</b>			
	<b>Rule 4565</b>	<b>Current PTO<sup>13</sup></b>	<b>Proposed</b>
Control efficiency (ST frequency) 4565.5.7	Within 90 days of installation and then every 2 years.	S-4212-1 (BF5): Startup  S-4212-2 (BF1-BF4): Startup and every 2 years.	Both permits - Every time media is replaced, and when surrogate parameters cannot be corrected within 1 week of being detected out of range. S-4212-2 Every 2 years (Rule 4565).
# test points	Not identified	16	4 (Consistent with SCAQMD)
Test method 4565.6.2.3.1	SCAQMD Method 25.3	SCAQMD methods 25.3, 207.1, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1. <sup>14</sup>  Performed for VOC & NH3 inlet concentrations, inlet flowrate, and VOC & NH3 destruction efficiencies across biofilter, performed independent SCAQMD certified testing laboratory.	SCAQMD methods 25.3, 207.1, 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 4.1.  Performed for VOC and NH3 inlet concentrations, inlet flowrate, and VOC and NH3 destruction efficiencies across the biofilter, performed by an independent SCAQMD certified testing laboratory.

Analysis of biofilters source testing requirements:

Because SKIC was the first facility in the District to permit composting using ASPs, the District required extensive testing to verify compliance with emissions limits listed on the permits and the facility wide emissions limit. The testing verified compliance with New Source Review (NSR) BACT and offset requirements. The testing established emissions factors for both VOC and NH<sub>3</sub> from the co-composting operations, and was used to verify the proper amount of offsets had been provided.

However now that they have established a facility wide emissions factor and compliance with the offset provisions of the permit, the testing requirements may be modified to be more appropriate for demonstrating on-going compliance (extensive number of sampling points are not required for on-going compliance demonstration – so long as all grids are within the designated temperature range, a smaller number of representative sampling points may be used). The applicant is proposing that the minimum number of points tested on the biofilters, used to determine control efficiency, be lowered from 16 to 8. Verification of ongoing compliance with biofilter control efficiency will continued to be demonstrated by monitoring appropriate surrogate parameters (primarily temperature of the biofilter media). The applicant is not proposing any change in the source testing frequency of the biofilters, just the number sampling points tested.

<sup>13</sup> Note: The ATCs for this facility were issued prior to the adoption of the rule, which is why there are some differences in requirements (which must be reconciled or justified) for the pre-project permit.

<sup>14</sup> Using a modified version of 25.3 as articulated by Mike Garibay of SCAQMD in letter dated 11/1/2007.

### Biofilter monitoring and maintenance requirements

As seen in the proposed modifications to the permit conditions (detailed in section 1), the applicant is proposing to monitor all 16 biofilter grids on each biofilter – once per week. Maintenance and other testing and monitoring requirements will be triggered based on the results of the weekly temperature testing. Temperature was determined to be the most informative and significant surrogate parameter to determine proper biofilter operation. If the temperature is in-range for all 16 cells of the biofilter (and blower fan pressure is in range) then the biofilter is operating correctly. The permit maintenance, monitoring and testing requirements are being added and/or revised based on the above assumptions regarding temperature and fan pressure.

Operating experience has shown that occasional maintenance is required on the biofilter blower fans. Shutting the fans off for a short period of time has a negligible impact on the biofilter - a biological control device with a delayed response time to changes in oxygen. If the fan were off for too long of a period of time, the “bugs” in the biofilter would starve and begin to die off. For the maintenance time periods proposed (no more than 48 hours in any 6 months), the affect on the biofilter would be negligible.

Vegetative growth may be detrimental to a biofilters operation, as the vegetation may cause channeling in the biofilter. Consistent with Rule 4565, a condition has been added which restricts vegetative growth to no more than 10% of the biofilter surface.

District Rule 4565 allows for alternate monitoring limits and test methods. To the extent that the facility has established site specific normal operating ranges for their biofilters (temperature, pH, moisture, etc.) – those values have been used to set the permitted parameter limits. Other requirements of Rule 4565 (adopted after the original issuance of the SKIC permits) are being added to the permits to make them Rule 4565 compliant. These include identifying the requirement for class 1 and class 2 mitigation measures and quarterly testing of VOC on the surface of the ASPs

### Throughput and Operating Schedules

Maximum operating schedule for receiving operations, mixing operations and ASP pile building/screening operations (all except emergency IC engine) - 24 hrs/day, 365 days/yr.

## **V. EQUIPMENT LISTING**

### Pre-Project Equipment Description:

S-4212-1-4

BIOSOLIDS AND AMENDMENTS RECEIVING/MIXING OPERATION, INCLUDING AMENDMENT STORAGE AREA, FEED HOPPER WITH WATER SPRAY MISTERS, CONVEYOR DISCHARGING TO AMENDMENT PILES IN MIXING BUILDING, BIOSOLIDS UNLOADING INTO MIXING BUILDING, WITH MIXING BUILDING AND COVERED FEEDSTOCK CONVEYOR VENTED TO MIXING BUILDING BIOFILTER.